

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:246563 CAPLUS
 DN 134:266198
 TI Preparation of N-arylsulfonyl amino acid derivatives as c-Jun N-terminal kinase inhibitors
 IN Arkininstall, Stephen
 PA Applied Research Systems ARS Holding N.V., Neth. Antilles
 SO Eur. Pat. Appl., 29 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------|--|------|----------|-----------------|--------------|
| PI | EP 1088815 | A1 | 20010404 | EP 1999-810871 | 19990928 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | WO 2001023379 | A1 | 20010405 | WO 2000-IB1382 | 20000928 <-- |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1218375 | A1 | 20020703 | EP 2000-960922 | 20000928 |
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| | JP 2003510320 | T2 | 20030318 | JP 2001-526531 | 20000928 |
| PRAI | EP 1999-810871 | A | 19990928 | | |
| | WO 2000-IB1382 | W | 20000928 | | |
| OS | MARPAT 134:266198 | | | | |
| RE.CNT 15 | THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT | | | | |

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L3      ANALYZE L2 1 RN :      17 TERMS

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STRUCTURE FILE UPDATES: 25 JUN 2003 HIGHEST RN 537653-06-8
 DICTIONARY FILE UPDATES: 25 JUN 2003 HIGHEST RN 537653-06-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when

conducting SmartSELECT searches.

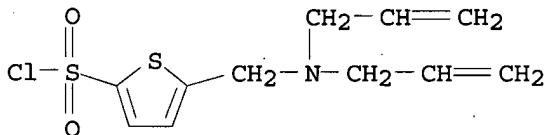
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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L4 17 L3

=> d 1-17

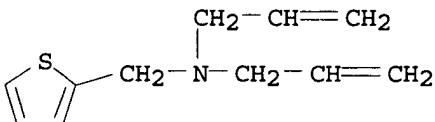
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RN 332082-90-3 REGISTRY
CN 2-Thiophenesulfonyl chloride, 5-[(di-2-propenylamino)methyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5-((Diallylamino)methyl)thiophene-2-sulfonyl chloride
FS 3D CONCORD
MF C11 H14 Cl N O2 S2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



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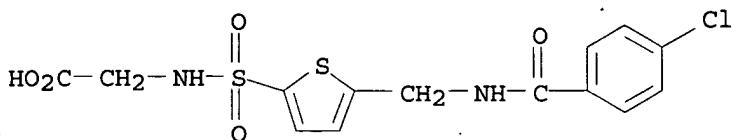
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RN 332082-89-0 REGISTRY
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OTHER NAMES:
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FS 3D CONCORD
MF C11 H15 N S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



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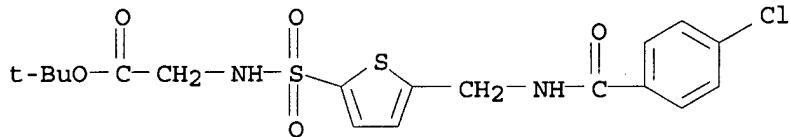
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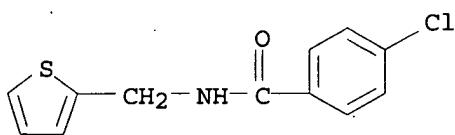
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 RN 332082-87-8 REGISTRY
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 MF C18 H21 Cl N2 O5 S2
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 LC STN Files: CA, CAPLUS



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 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

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 CN Benzamide, 4-chloro-N-(2-thienylmethyl)- (9CI) (CA INDEX NAME)
 OTHER NAMES:
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 LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER

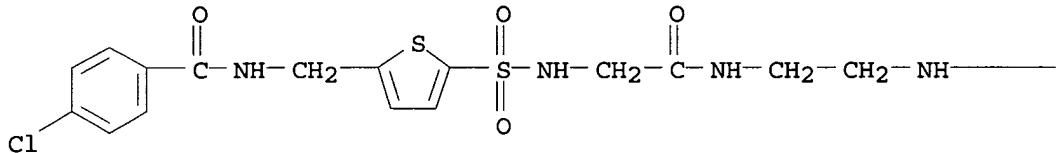


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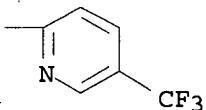
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6 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L4 ANSWER 6 OF 17 REGISTRY COPYRIGHT 2003 ACS
RN 332082-85-6 REGISTRY
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(CA INDEX NAME)
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LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B

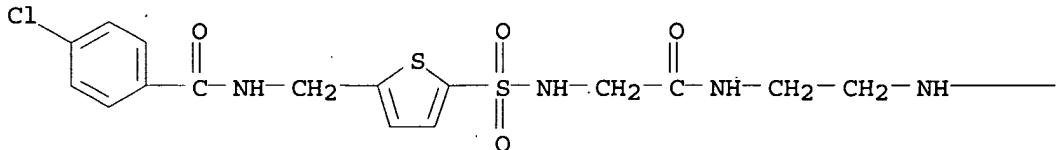


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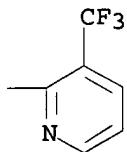
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1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L4 ANSWER 7 OF 17 REGISTRY COPYRIGHT 2003 ACS
RN 332082-84-5 REGISTRY
CN Benzamide, 4-chloro-N-[[5-[[[2-oxo-2-[[2-[[3-(trifluoromethyl)-2-pyridinyl]amino]ethyl]amino]ethyl]sulfonyl]-2-thienyl]methyl]- (9CI)
(CA INDEX NAME)
FS 3D CONCORD
MF C22 H21 Cl F3 N5 O4 S2
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B

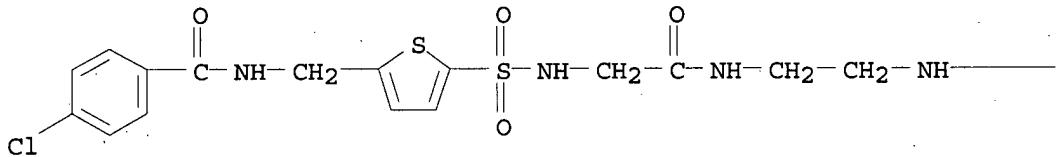


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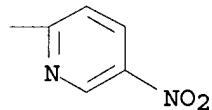
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L4 ANSWER 8 OF 17. REGISTRY COPYRIGHT 2003 ACS
RN 332082-83-4 REGISTRY
CN Benzamide, 4-chloro-N-[[5-[[2-[[2-[(5-nitro-2-pyridinyl)amino]ethyl]amino]-2-oxoethyl]amino]sulfonyl]-2-thienyl]methyl]-(9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C21 H21 Cl N6 O6 S2
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



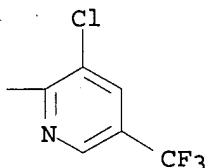
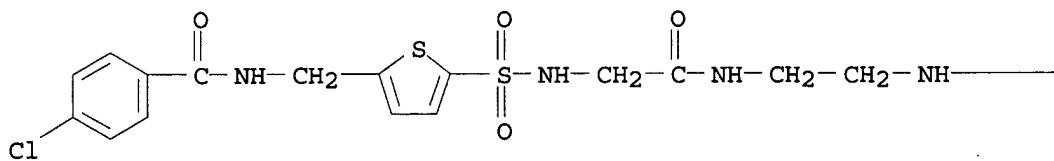
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L4 ANSWER 9 OF 17 REGISTRY COPYRIGHT 2003 ACS
RN 332082-82-3 REGISTRY
CN Benzamide, 4-chloro-N-[[5-[[2-[[2-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]amino]ethyl]amino]-2-oxoethyl]amino]sulfonyl]-2-thienyl]methyl]-(9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C22 H20 Cl2 F3 N5 O4 S2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L4 ANSWER 10 OF 17 REGISTRY COPYRIGHT 2003 ACS
 RN 291756-39-3 REGISTRY
 CN Kinase (phosphorylating), gene c-jun protein N-terminal, 3 (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN c-Jun N-terminal kinase 3
 CN Gene c-jun protein N-terminal kinase 3
 CN JNK3
 CN JNK3 kinase
 CN JNK3 protein kinase
 CN Jun N-terminal kinase 3
 CN Mitogen-activated protein kinase 10
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 MF Unspecified
 CI MAN
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 LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPATFULL

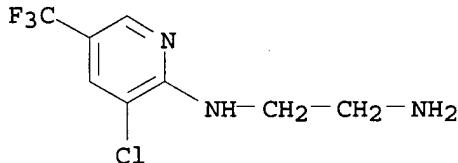
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L4 ANSWER 11 OF 17 REGISTRY COPYRIGHT 2003 ACS
 RN 289899-93-0 REGISTRY
 CN Kinase (phosphorylating), gene c-jun protein N-terminal, 2 (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN c-Jun N-terminal kinase 2
 CN Gene c-jun protein N-terminal kinase 2
 CN JNK-55 protein kinase
 CN JNK2
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 CN p54 c-Jun N-terminal kinase

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 CI MAN
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 LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPATFULL

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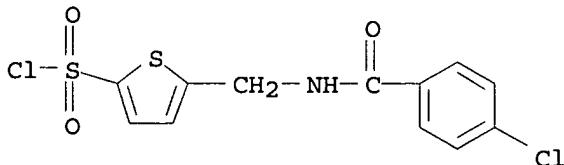
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 RN 219478-19-0 REGISTRY
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 (CA INDEX NAME)
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 LC STN Files: CA, CAPLUS, CHEMCATS, USPATFULL

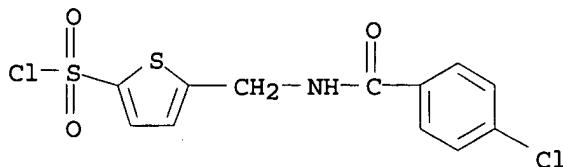


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L4 ANSWER 13 OF 17 REGISTRY COPYRIGHT 2003 ACS
 RN 166964-34-7 REGISTRY
 CN 2-Thiophenesulfonyl chloride, 5-[[[(4-chlorobenzoyl)amino]methyl]- (9CI)
 (CA INDEX NAME)
 OTHER NAMES:
 CN 5-(((4-Chlorobenzoyl)amino)methyl)-2-thiophenesulfonyl chloride
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 CN 5-[N-(4-Chlorobenzoyl)aminomethyl]thiophene-2-sulfonyl chloride
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 FS 3D CONCORD
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 LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, TOXCENTER, USPAT2,
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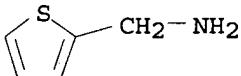




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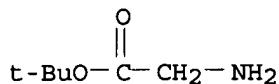
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 RN 27757-85-3 REGISTRY
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 OTHER CA INDEX NAMES:
 CN 2-Thenylamine (6CI, 7CI, 8CI)
 OTHER NAMES:
 CN (Thiophen-2-ylmethyl)amine
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 CN 2-Thienylmethylamine
 CN 2-Thiophenemethylamine
 FS 3D CONCORD
 MF C5 H7 N S
 CI COM
 LC STN Files: ANABSTR, BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CSCHEM, GMELIN*, IFICDB, IFIPAT, IFIUDB,
 MSDS-OHS, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
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 Other Sources: EINECS**
 (**Enter CHEMLIST File for up-to-date regulatory information)



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360 REFERENCES IN FILE CA (1957 TO DATE)
 8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 362 REFERENCES IN FILE CAPLUS (1957 TO DATE)
 4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L4 ANSWER 15 OF 17 REGISTRY COPYRIGHT 2003 ACS
 RN 27532-96-3 REGISTRY
 CN Glycine, 1,1-dimethylethyl ester, hydrochloride (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Glycine, tert-butyl ester, hydrochloride (7CI, 8CI)
 OTHER NAMES:
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 CN tert-Butylglycinate hydrochloride
 MF C6 H13 N O2 . Cl H
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM,
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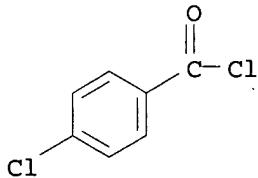


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 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L4 ANSWER 16 OF 17 REGISTRY COPYRIGHT 2003 ACS
 RN 122-01-0 REGISTRY
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 CN p-Chlorobenzoyl chloride
 CN para-Chlorobenzoyl chloride
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 HODOC*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, NIOSHTIC, PROMT, RTECS*,
 SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
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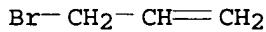


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 30 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L4 ANSWER 17 OF 17 REGISTRY COPYRIGHT 2003 ACS
 RN 106-95-6 REGISTRY
 CN 1-Propene, 3-bromo- (9CI) (CA INDEX NAME)
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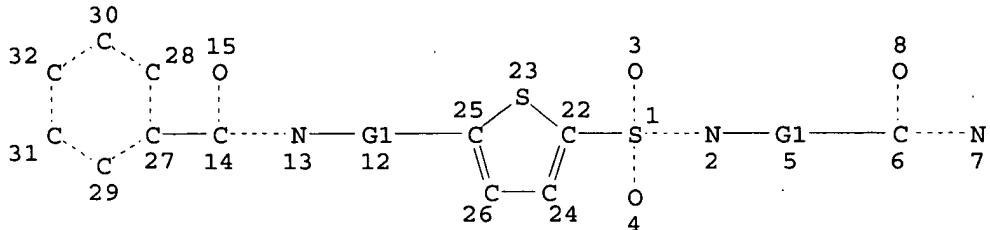
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CN 37: PN: WO03037338 PAGE: 58 claimed sequence
CN Allyl bromide
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MF C3 H5 Br
CI COM
LC STN Files: ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST,
CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, EMBASE, ENCOMPLIT, ENCOMPLIT2,
ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PROMT, RTECS*, SPECINFO, SYNTHLINE,
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(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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11542 REFERENCES IN FILE CAPLUS (1957 TO DATE)
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

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L8 11 L7 NOT L4

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FILE COVERS 1907 - 26 Jun 2003 VOL 138 ISS 26
FILE LAST UPDATED: 25 Jun 2003 (20030625/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L9 8 L8

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L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS
AN 2002:521684 CAPLUS

DN 137:88483

TI Hydrophobic polyamine analogs and methods for their use

IN Burns, Mark Robert; Graminski, Gerard F.; Banduir, Nand

PA Oridigm Corporation, USA

SO PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| | | | | | |
|----|---------------|----|----------|---------------|----------|
| PI | WO 2002053519 | A2 | 20020711 | WO 2002-US347 | 20020108 |
| | WO 2002053519 | A3 | 20030313 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-260415P P 20010108

OS MARPAT 137:88483

AB The invention provides polyamine analogs and derivs. contg. a hydrophobic region and a polyamine region, as well as methods and compns. for their use. The compds. of the invention can be used e.g. to treat cancer, osteoporosis, asthma, etc.

IT 330162-58-8

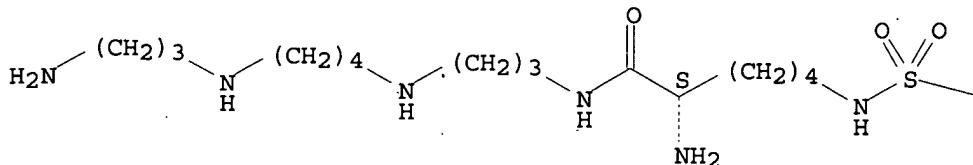
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrophobic polyamine analogs and use)

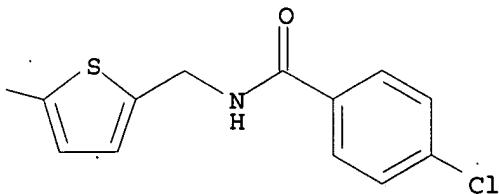
RN 330162-58-8 CAPLUS

CN Benzamide, N-[[5-[[[[5S]-5-amino-6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

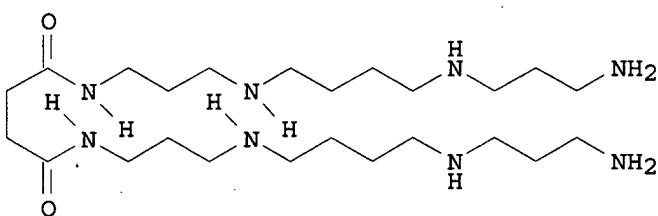




L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS
 AN 2001:886056 CAPLUS
 DN 136:15226
 TI Novel polyamine transport-inhibiting polyamine analogues as therapeutic and diagnostic agents
 IN Vermeulin, Nicolaas M. J.; O'day, Christine L.; Webb, Heather K.; Burns, Mark R.; Bergstrom, Donald E.
 PA Oridigm Corporation, USA
 SO PCT Int. Appl., 102 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|--|--|-----------------|----------|
| PI | WO 2001092218 | A2 | 20011206 | WO 2001-US17795 | 20010531 |
| | WO 2001092218 | A3 | 20030327 | | |
| | | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | |
| | | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | |
| | EP 1317424 | A2 | 20030611 | EP 2001-946044 | 20010531 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| PRAI | US 2000-584175 | A | 20000531 | | |
| | WO 2001-US17795 | W | 20010531 | | |

GI



I

AB Novel "bispolyamine" inhibitor compds. of polyamine transport are disclosed. These compds. are useful pharmaceutical agents for treating diseases where it is desired to inhibit polyamine transport or other polyamine binding proteins, for example cancer and post-angioplasty

injury. These compds. display desirable activities both for diagnostic and research assays and therapy. Most of the spermine dimers that have been tested provided very good Ki for transport inhibition with values under 75 nM. ORI 1236 (I) was the most potent inhibitor with a Ki of 22 nM. The results were generally mirrored in the growth inhibition assay. All of the compds. were synergistic with difluoromethylornithine, a polyamine synthesis inhibitor, with IC50 values of 10 .mu.M or less.

IT 220221-41-0 220221-56-7 287968-56-3

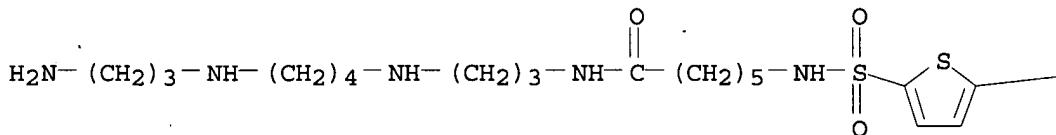
330162-48-6 330162-52-2

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel polyamine transport-inhibiting polyamine analogs as therapeutic and diagnostic agents)

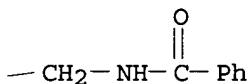
RN 220221-41-0 CAPLUS

CN Benzamide, N-[[5-[[[6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



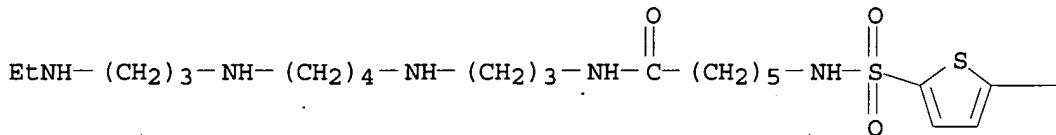
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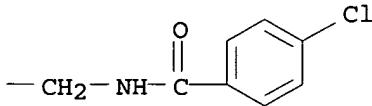
RN 220221-56-7 CAPLUS

CN Benzamide, 4-chloro-N-[[5-[[[6-oxo-7,11,16,20-tetraazadocos-1-yl)amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



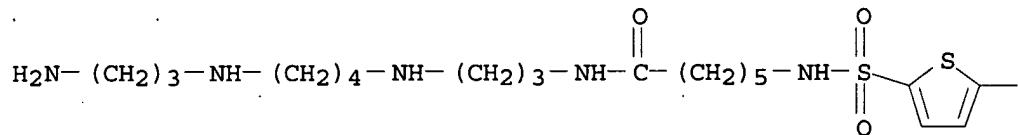
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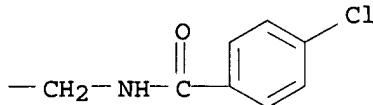
RN 287968-56-3 CAPLUS

CN Benzamide, N-[[5-[[[6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)

PAGE 1-A



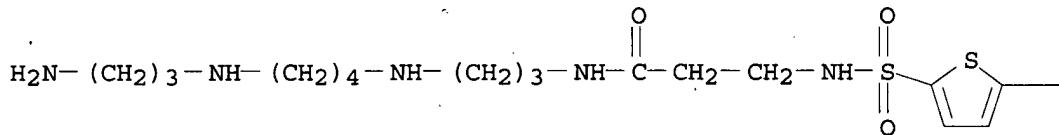
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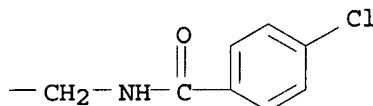
RN 330162-48-6 CAPLUS

CN Benzamide, N-[5-[[3-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-3-oxopropyl]amino]sulfonyl]-2-thienylmethyl]-4-chloro- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

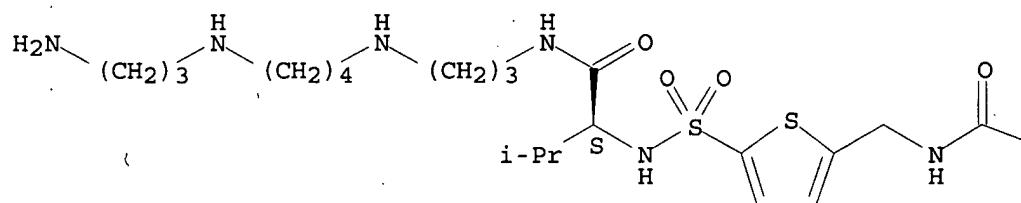


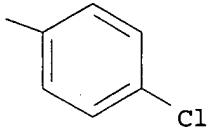
RN 330162-52-2 CAPLUS

CN Benzamide, N-[5-[[[(1*S*)-1-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-2-methylpropyl]amino]sulfonyl]-2-thienylmethyl]-4-chloro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS

AN 2001:730681 CAPLUS

DN 135:272682

TI Polyamine analogues as cytotoxic agents

IN Burns, Mark R.

PA Oridigm Corporation, USA

SO PCT Int. Appl., 57 pp.

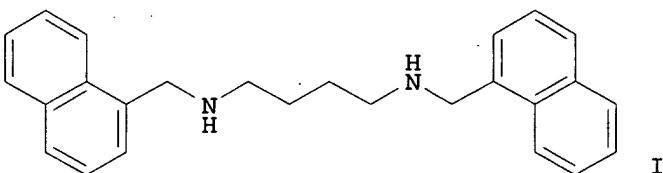
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

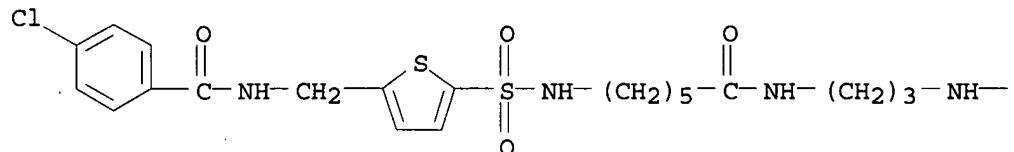
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------------|--|-----------------|----------|
| PI | WO 2001072685 | A2 | 20011004 | WO 2001-US40360 | 20010323 |
| | WO 2001072685 | A3 | 20020718 | | |
| | WO 2001072685 | C2 | 20021010 | | |
| | | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | |
| | | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | |
| | EP 1296931 | A2 | 20030402 | EP 2001-925146 | 20010323 |
| | | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | |
| | US 2003045755 | A1 | 20030306 | US 2002-239521 | 20020923 |
| PRAI | US 2000-191839P | P | 20000324 | | |
| | WO 2001-US40360 | W | 20010323 | | |
| OS | MARPAT | 135:272682 | | | |
| GI | | | | | |



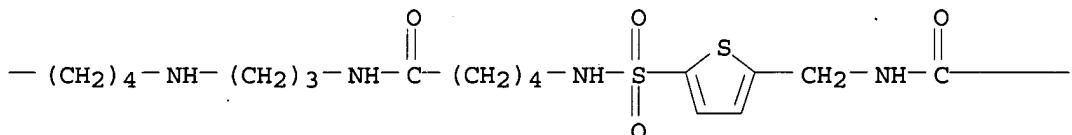
AB Novel cytotoxic polyamine analogs are disclosed. These analogs are useful pharmaceutical agents for treating diseases where it is desired to inhibit cell growth and/or proliferation, for example cancer and post-angioplasty injury. Thus, I (ORI 1313) is prep'd. and inhibited A375 melanoma growth

IT 36% in mice.
 IT 330163-38-7P 330163-49-0P 330163-51-4P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of polyamine analogs as cytotoxic agents)
 RN 330163-38-7 CAPLUS
 CN Benzamide, N,N'-[{(6,21-dioxo-7,11,16,20-tetraaza-1,25-pentacosanediyl)bis(iminosulfonyl-5,2-thiophenediylmethylene)}bis[4-chloro-(9CI) (CA INDEX NAME)

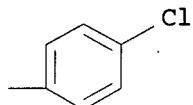
PAGE 1-A



PAGE 1-B

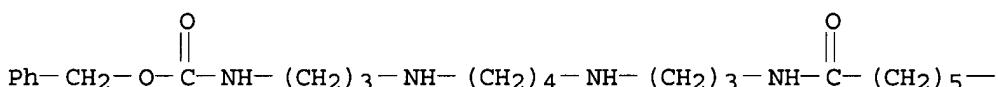


PAGE 1-C

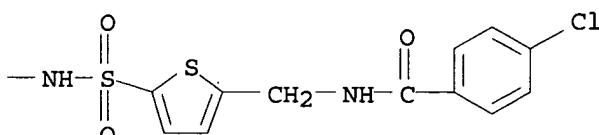


RN 330163-49-0 CAPLUS
 CN 2,6,11,15-Tetraazaheneicosanoic acid, 21-[[[5-[[[(4-chlorobenzoyl)amino]methyl]-2-thienyl]sulfonyl]amino]-16-oxo-phenylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



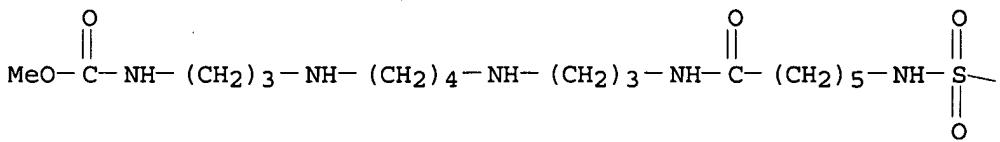
PAGE 1-B



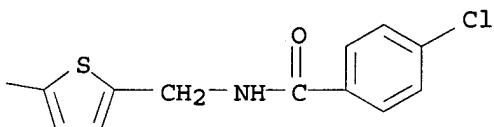
RN 330163-51-4 CAPLUS
 CN 2,6,11,15-Tetraazaheneicosanoic acid, 21-[[[5-[[[(4-

chlorobenzoyl)amino]methyl]-2-thienyl]sulfonyl]amino]-16-oxo-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

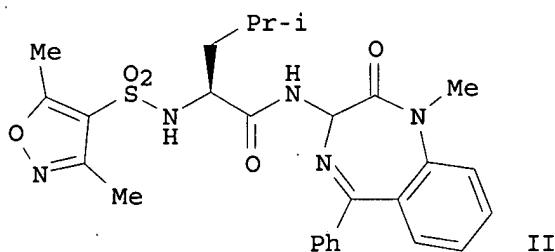
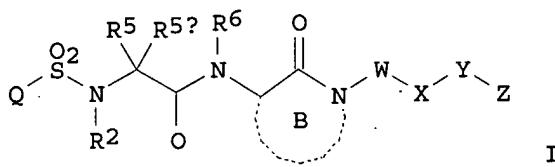


PAGE 1-B



L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS
AN 2001:283950 CAPLUS
DN 134:295844
TI Preparation of amino lactam sulfonamides as inhibitors of A. β .-protein production
IN Thompson, Lorin Andrew; Han, Amy Qi
PA Du Pont Pharmaceuticals Company, USA
SO PCT Int. Appl., 194 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------------|----------|-----------------|----------|
| PI | WO 2001027108 | A1 | 20010419 | WO 2000-US27666 | 20001007 |
| | W: AU, BR, CA, CN, CZ, EE, HU, IL, IN, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1218377 | A1 | 20020703 | EP 2000-970627 | 20001007 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY | | | | |
| | US 6503901 | B1 | 20030107 | US 2000-684718 | 20001007 |
| PRAI | US 1999-158565P | P | 19991008 | | |
| | WO 2000-US27666 | W | 20001007 | | |
| OS | MARPAT | 134:295844 | | | |
| GI | | | | | |



AB The title compds. [I; Q = alkyl, cycloalkyl, etc.; R2 = H, alkyl, alkoxyalkyl, etc.; R5 = H, alkyl, alkoxy, etc.; R5a = H, alkyl; R6 = H, alkyl, aryl, etc.; ring B = 6-8 membered (un)satd. (un)substituted lactam which optionally contains heteroatom; W = (CR8R8a)p; p = 0-4; R8, R8a = H, F, alkyl, etc.; X = a bond, aryl, cycloalkyl, etc.; Y = a bond, alkylene, etc.; Z = H, alkyl, alkenyl, etc.] which inhibit the processing of amyloid precursor protein and, more specifically, inhibit the prodn. of A. β -peptide, thereby acting to prevent the formation of neurol. deposits of amyloid protein, were prep'd. E.g., a 3-step synthesis of II was given. More particularly, the present invention relates to the treatment of neurol. disorders related to β -amyloid prodn. such as Alzheimer's disease and Down's Syndrome. Also, method for inhibiting γ -secretase activity was claimed.

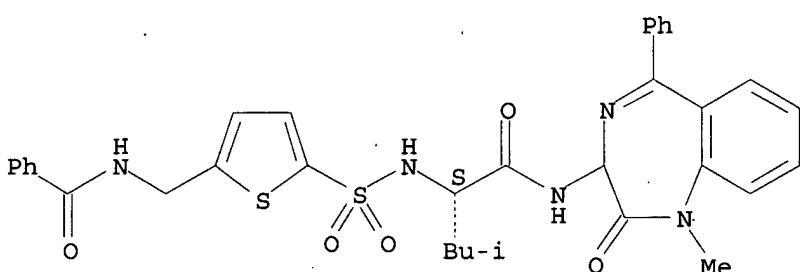
IT 334870-26-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of amino lactam sulfonamides as inhibitors of A. β .-protein prodn.)

BN 334870-26-7 CAPLUS

BN 55401-26-1 CASREG
CN Benzamide, N-[[5-[[[[(1S)-1-[[[(2,3-dihydro-1-methyl-2-oxo-5-phenyl-1H-1,4-benzodiazepin-3-yl)amino]carbonyl]-3-methylbutyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

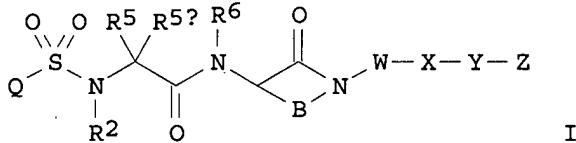
L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS
AN 2001:283935 CAPLUS

DN 134:311233
 TI Amino lactam sulfonamides as inhibitors of amyloid-.beta. protein
 production
 IN Thompson, Lorin Andrew
 PA Du Pont Pharmaceuticals Company, USA
 SO PCT Int. Appl., 161 pp.
 CODEN: PIXXD2

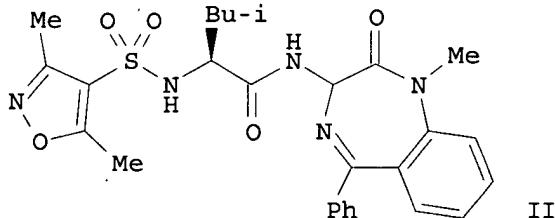
DT Patent
 LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------------|----------|-----------------|----------|
| PI | WO 2001027091 | A1 | 20010419 | WO 2000-US27665 | 20001007 |
| | W: AU, BR, CA, CN, CZ, EE, HU, IL, IN, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, VN, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1222176 | A1 | 20020717 | EP 2000-970626 | 20001007 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY | | | | |
| | US 6503901 | B1 | 20030107 | US 2000-684718 | 20001007 |
| PRAI | US 1999-158565P | P | 19991008 | | |
| | WO 2000-US27665 | W | 20001007 | | |
| OS | MARPAT | 134:311233 | | | |
| GI | | | | | |



I



II

AB This invention relates to prepn. of novel lactams, particularly
 benzo[e][1,4]diazepines (I) [wherein Q = (un)substituted (cyclo)alkyl,
 alkenyl, alkynyl, carbocyclyl, aryl, or heterocyclyl; R2 = H or
 (un)substituted (alkoxy)alkyl, carbocyclyl(methyl), aryl(methyl),
 arylethyl, or heterocyclyl; R5 and R5a combine to form a 3-7 membered
 (un)substituted cycloalkyl or benzo-fused ring; R6 = H or (un)substituted
 alkyl, carbocyclyl, or aryl; ring B = 6-8 membered (un)substituted lactam,
 optionally contg. N, NH, NR10, O, S, SO, or SO2; R10 = H, acyl, carboxy
 (ester), carbamoyl, sulfamoyl, (un)substituted alkyl, aryl, carbocyclyl,
 heterocyclyl, etc.; W = (CR8R8a)p; p = 0-4; R8 and R8a = independently H,
 F, (cyclo)alkyl, alkenyl, or alkynyl; X = a bond or (un)substituted aryl,
 cycloalkyl, carbocyclyl, or heterocyclyl; Y = a bond or
 (CR9R9a)tV(CR9R9a)u; R9 and R9a = independently H, F, or (cycloalkyl); t
 and u = independently 0-3; V = a bond, CO, O, S, SO, SO2, CO2, OCO or

(un)substituted NH, CONH, NHCO, NHCO₂, SO₂NH, NHSO, or SONH; Z = H or (un)substituted alkyl, alkenyl, alkynyl, aryl, carbocyclyl, or heterocyclyl] and their pharmaceutical compns. These novel compds. inhibit the processing of amyloid precursor protein and, more specifically, inhibit the prodn. of amyloid-.beta. (A.beta.) peptide, thereby acting to prevent the formation of neurol. deposits of amyloid protein (no data). More particularly, the present invention relates to the treatment of neurol. disorders related to .beta.-amyloid prodn., such as Alzheimer's disease and Down's Syndrome (no data). For example, 3-amino-1-methyl-5-phenyl-1,3-dihydrobenzo[e][1,4]diazepin-2-one was coupled with N-Boc-L-leucine, deprotected using TFA, and coupled with 3,5-dimethylisoxazole-4-sulfonyl chloride to give II.

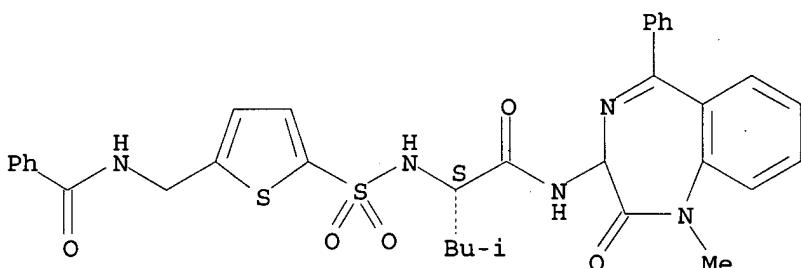
IT 334870-26-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of amino lactam sulfonamides as inhibitors of a.beta. protein prodn.)

RN 334870-26-7 CAPLUS

CN Benzamide, N-[[5-[[[(1S)-1-[[[(2,3-dihydro-1-methyl-2-oxo-5-phenyl-1H-1,4-benzodiazepin-3-yl)amino]carbonyl]-3-methylbutyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS

AN 2001:207925 CAPLUS

DN 134:237682

TI Novel polyamine analogues as therapeutic and diagnostic agents

IN Vermeulin, Nicholaas M. J.; O'Day, Christine L.; Webb, Heather K.; Burns, Mark R.; Bergstrom, Donald E.

PA Oridigm Corporation, USA

SO Eur. Pat. Appl., 140 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | EP 1085011 | A1 | 20010321 | EP 2000-308049 | 20000915 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2001172244 | A2 | 20010626 | JP 2000-282752 | 20000918 |

PRAI US 1999-396523 A 19990915

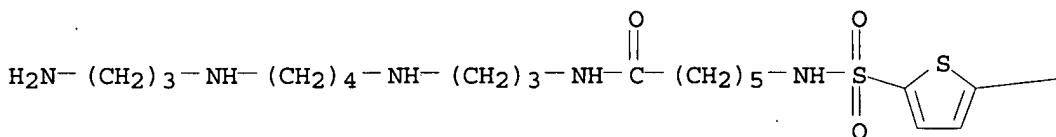
AB Novel inhibitors of polyamine transport having inhibition consts. two orders of magnitude lower than those of known compds. are disclosed. These polyamine analogs are useful pharmaceutical agents for treating disease where it is desired to inhibit polyamine transport or other polyamine binding proteins, for example cancer and post-angioplasty

injury. Novel chem. synthetic methods to obtain polyamine analogs are disclosed, including the prodn. of a combinatorial polyamine library. These approaches yield analogs with desirable activities both for diagnostic and research assays and therapy. The assays of the invention are useful for high throughput screening of targets in the discovery of drugs that interact with the polyamine system.

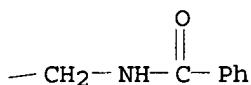
IT 220221-41-0P 287968-56-3P 330162-38-4P
 330162-48-6P 330162-52-2P 330162-58-8P
 330163-38-7P 330163-49-0P 330163-51-4P
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of polyamines as therapeutic and diagnostic agents)

RN 220221-41-0 CAPLUS
 CN Benzamide, N-[[5-[[[6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

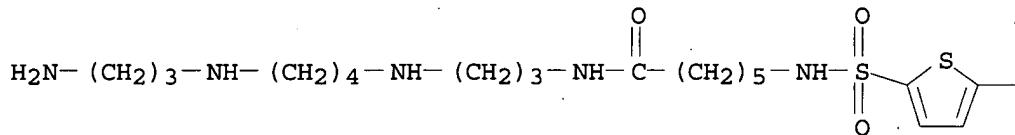


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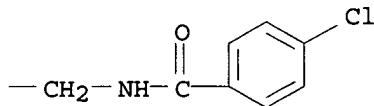


RN 287968-56-3 CAPLUS
 CN Benzamide, N-[[5-[[[6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)

PAGE 1-A

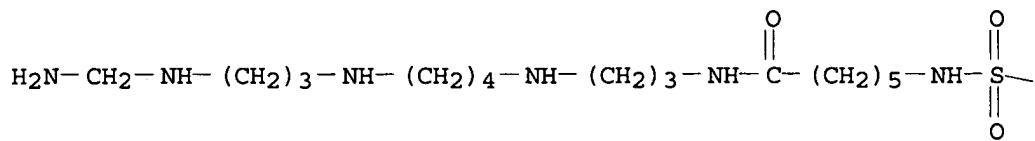


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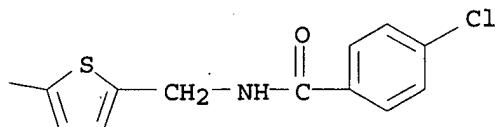


RN 330162-38-4 CAPLUS
 CN Benzamide, N-[[5-[(21-amino-6-oxo-7,11,16,20-tetraazaheneicos-1-yl)amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)

PAGE 1-A

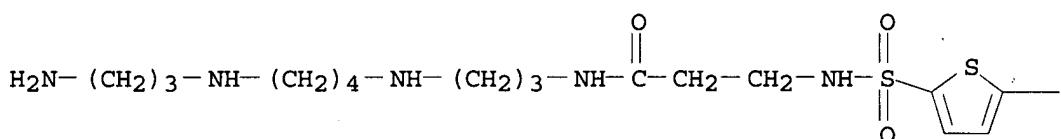


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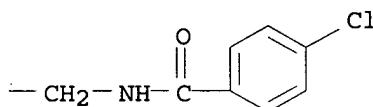


RN 330162-48-6 CAPLUS
CN Benzamide, N-[[5-[[3-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-3-oxopropyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)

PAGE 1-A



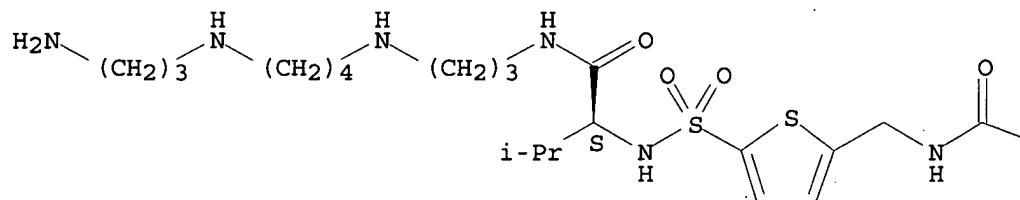
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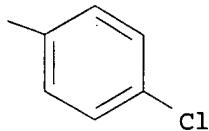


RN 330162-52-2 CAPLUS
CN Benzamide, N-[[5-[[[(1S)-1-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-2-methylpropyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI). (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

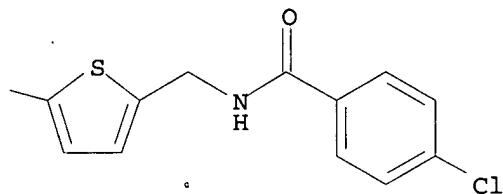
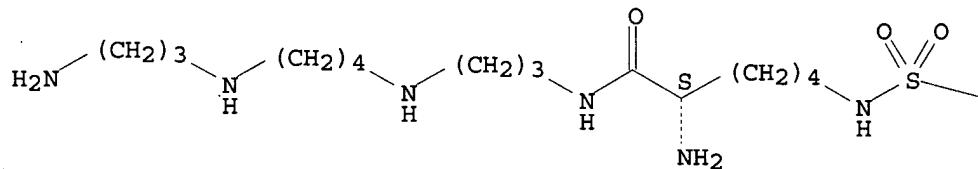




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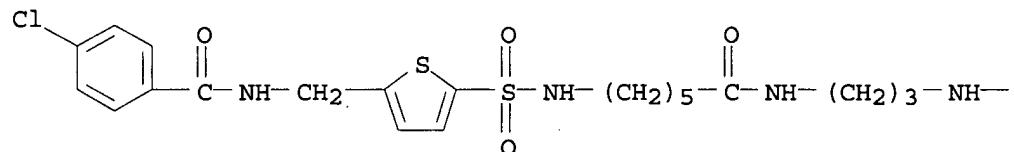
CN Benzamide, N-[[5-[[[(5S)-5-amino-6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

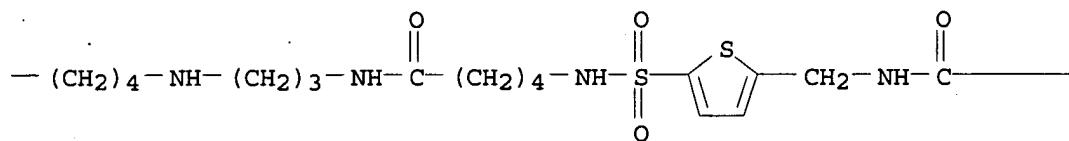


RN 330163-38-7 CAPLUS

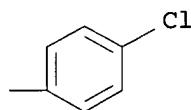
CN Benzamide, N,N'-[(6,21-dioxo-7,11,16,20-tetraaza-1,25-pentacosanediyl)bis(iminosulfonyl-5,2-thiophenediylmethylene)]bis[4-chloro- (9CI) (CA INDEX NAME)



PAGE 1-B



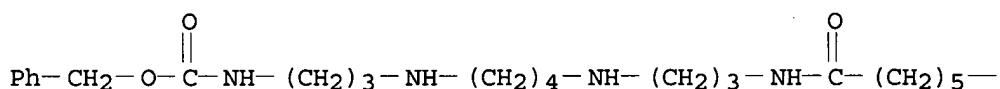
PAGE 1-C



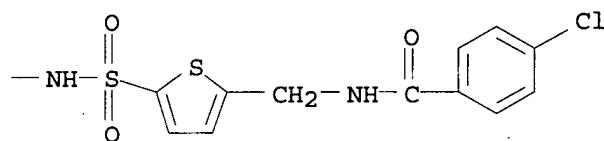
RN 330163-49-0 CAPLUS

CN 2,6,11,15-Tetraazaheneicosanoic acid, 21-[[5-[[[(4-chlorobenzoyl)amino]methyl]-2-thienyl]sulfonyl]amino]-16-oxo-, phenylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



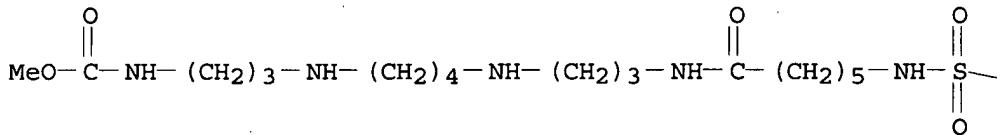
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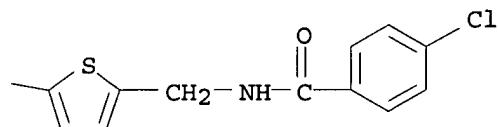
RN 330163-51-4 CAPLUS

CN 2,6,11,15-Tetraazaheneicosanoic acid, 21-[[5-[[[(4-chlorobenzoyl)amino]methyl]-2-thienyl]sulfonyl]amino]-16-oxo-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



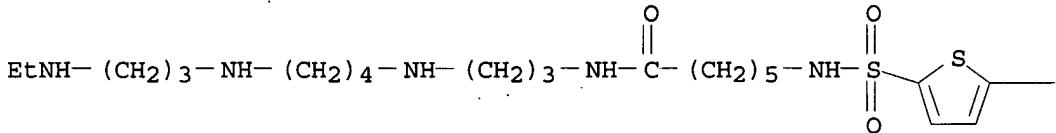
IT 220221-56-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of polyamines as therapeutic and diagnostic agents)

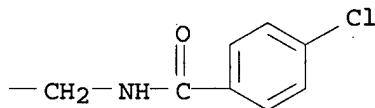
RN 220221-56-7 CAPLUS

CN Benzamide, 4-chloro-N-[[5-[[[(6-oxo-7,11,16,20-tetraazadocos-1-yl)amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS
 AN 2000:553544 CAPLUS
 DN 133:164201
 TI Preparation of agmatine and polyamine analogs as antizyme modulators for use as drugs and agricultural agents
 IN Vermeulin, Nicolaas M. J.; Burns, Mark R.; Webb, Heather K.
 PA Oridigm Corporation, USA
 SO PCT Int. Appl., 80 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2000046187 | A2 | 20000810 | WO 2000-US2972 | 20000204 |
| | WO 2000046187 | A3 | 20001214 | | |
| | W: AL, AM, AU, AZ, BA, BB, BG, BR, CA, CN, CU, CZ, EE, FI, GE, HU, IL, IS, JP, KG, KP, KR, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1159261 | A2 | 20011205 | EP 2000-913365 | 20000204 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 2002536357 | T2 | 20021029 | JP 2000-597259 | 20000204 |
| PRAI | US 1999-118892P | P | 19990205 | | |
| | WO 2000-US2972 | W | 20000204 | | |
| AB | A polyamine analog of spermine comprising of four amine groups capable of forming four pos. charges at physiol. pH, wherein the first and second amine groups, and the third and fourth amine groups, are sep'd. by the distance of four cC-C and or C-N bonds and the second and third amine are sep'd. by the distance of five C-C and/or C-N bonds or more; wherein the the second and third amines are sep'd. by a straight or branched | | | | |

C2-10-alkyl, -alkenyl, -alkynyl, alkoxy, aliph.; C3-10-alicyclic, single or multi-ring arom. or aryl; aryl-substituted alkyl, alkenyl, alkynyl; multiring aryl-substituted aliph.; aliph.-substituted single or multi-ring arom.; alkyl-, alkenyl-, alkynyl-substituted aryl; single or multi-ring heterocyclic; single or multi-ring heterocyclic-substituted aliph.; aliph.-substituted arom.; heterocyclic-substituted alkyl, alkenyl, alkynyl; alkyl-, alkenyl-, alkynyl-substituted heterocycle and wherein said analog induces expression of full-length antizyme. The present invention is directed to agmatine and polyamine analogs and their use as drugs, as well as agricultural or environmentally useful agents. As drugs, the analogs decrease cellular polyamine levels, possibly by inducing antizyme, and can be used to treat disorders of undesired cell proliferation, including cancer, viral infections and bacterial infections. The analogs may be utilized in pharmaceutical compns. either alone or in combination with other agents, particularly other inhibitors of polyamine synthesis or transport, but including other inhibitors of cell proliferation. The analogs are not necessarily metabolized to contribute to the polyamine pool and are designed to enter cells by pathways independent of polyamine transport. The invention further defines structural elements/motifs within these analogs that are key to their induction of antizyme.

IT 287968-56-3P

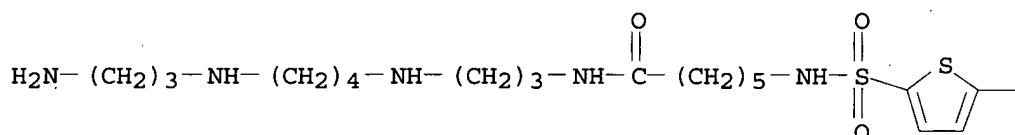
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of agmatine and polyamine analogs as antizyme modulators for use as drugs and agricultural agents)

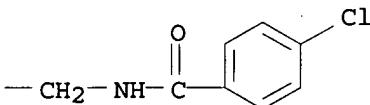
RN 287968-56-3 CAPLUS

CN Benzamide, N-[[5-[[[6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS

AN 1999:77533 CAPLUS

DN 130:153469

TI Novel polyamine analogs as therapeutic and diagnostic agents

IN Vermeulin, Nicolaas M. J.; O'Day, Christine L.; Webb, Heather K.; Burns, Mark R.; Bergstrom, Donald E.

PA Oridigm Corporation, USA

SO PCT Int. Appl., 143 pp.

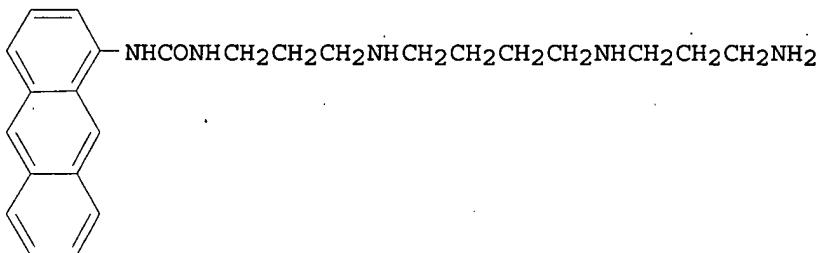
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------------|------|----------|---|----------|
| PI WO 9903823 | A2 | 19990128 | WO 1998-US14896 | 19980715 |
| WO 9903823 | A3 | 19990408 | | |
| | | | W: AL, AM, AU, AZ, BA, BB, BG, BR, CA, CN, CU, CZ, EE, FI, GE, HU, IL, IS, JP, KG, KP, KR, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | |
| | | | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | |
| AU 9884968 | A1 | 19990210 | AU 1998-84968 | 19980715 |
| AU 758570 | B2 | 20030327 | | |
| EP 1001927 | A2 | 20000524 | EP 1998-935790 | 19980715 |
| | | | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | |
| JP 2001510181 | T2 | 20010731 | JP 2000-503054 | 19980715 |
| US 6172261 | B1 | 20010109 | US 1999-341400 | 19990903 |
| PRAI US 1997-52586P | P | 19970715 | | |
| US 1997-65728P | P | 19971114 | | |
| US 1998-85538P | P | 19980515 | | |
| WO 1998-US14896 | W | 19980715 | | |
| OS MARPAT 130:153469 | | | | |
| GI | | | | |



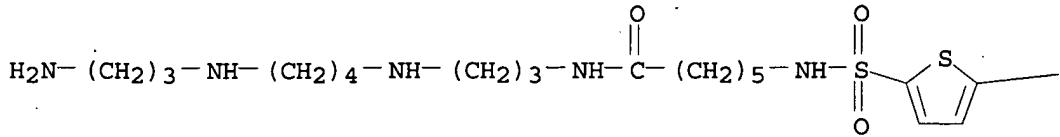
AB Title inhibitors RXR1 [R =H, or is a head group consisting of a straight or branched C1-10 aliph., alicyclic, single or multiring arom., single or multiring aryl substituted aliph., etc.; R1 is a polyamine; X = CO, NHCO, NHCS, SO2] and pharmaceutical acceptable salts of polyamine transport having inhibition consts. two orders of magnitude lower than those of known compds. are disclosed. These polyamine analogs are useful pharmaceutical agents for treating diseases where it is desired to inhibit polyamine transport or other polyamine binding proteins, for example cancer and post-angioplasty injury and the introduction of a 3-amidopropyl group to the diaminobutyl part of spermidine produce a significantly better transport inhibitor. Novel chem. synthetic methods to obtain polyamine analogs are disclosed, including the prodn. of a combinatorial polyamine library. These approaches yield analogs with desirable activities both for diagnostic and research assays and therapy. The assays of the invention are useful for high throughput screening of targets in the discovery of drugs that interact with the polyamine system. Thus, I was prep'd. from 1-aminoanthracene, 4-nitrophenyl chloroformate, and spermine.

IT 220221-41-0P 220221-56-7P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. of polyamines as therapeutic and diagnostic agents)

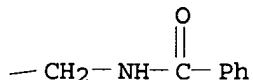
RN 220221-41-0 CAPLUS

CN Benzamide, N-[[5-[[6-[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]-6-oxohexyl]amino]sulfonyl]-2-thienyl]methyl] - (9CI) (CA INDEX NAME)

PAGE 1-A



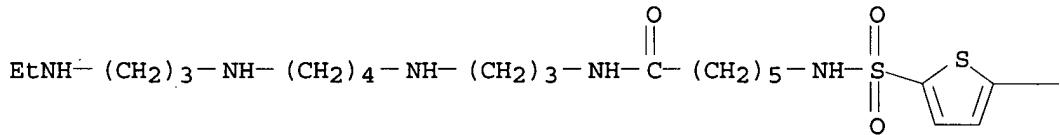
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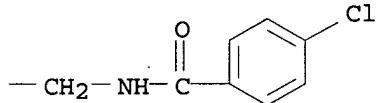
RN 220221-56-7 CAPLUS

CN Benzamide, 4-chloro-N-[[5-[[6-oxo-7,11,16,20-tetraazadocos-1-yl]amino]sulfonyl]-2-thienyl]methyl] - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



AN 1997:234254 CAPLUS

DN 126:225111

TI Hydroxamic acid derivatives useful for inhibiting gelatinase

IN Sakaki, Katsuhito; Kanazawa, Hidekazu; Sugiura, Tsuneyuki; Miyazaki, Tohru; Ohno, Hiroyuki

PA Ono Pharmaceutical Co., Ltd., Japan

SO Eur. Pat. Appl., 58 pp.

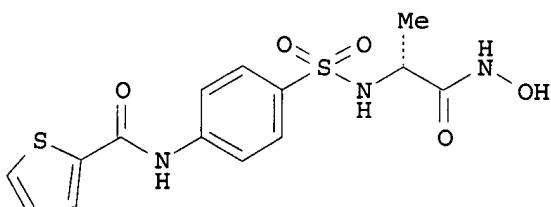
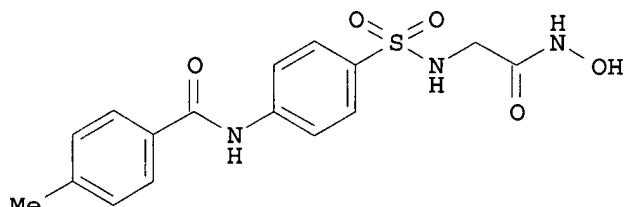
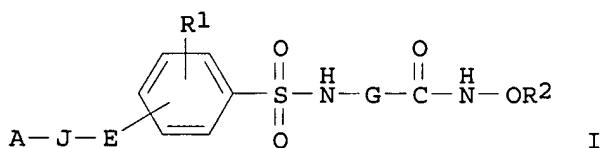
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | EP 757984 | A1 | 19970212 | EP 1996-305805 | 19960807 <-- |
| | EP 757984 | B1 | 20021030 | | |
| | R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| | JP 09104672 | A2 | 19970422 | JP 1996-221749 | 19960805 <-- |
| | US 6022893 | A | 20000208 | US 1996-694473 | 19960807 |
| | AT 226936 | E | 20021115 | AT 1996-305805 | 19960807 |
| | ES 2185750 | T3 | 20030501 | ES 1996-305805 | 19960807 |
| PRAI | JP 1995-222673 | A | 19950808 | | |
| OS | MARPAT | 126:225111 | | | |
| GI | | | | | |



AB The invention relates to hydroxamic acid derivs. I [wherein R1 = H, or C1-4 alkyl; R2 = H, C1-8 alkyl, Ph, C1-4 alkyl substituted by Ph; E = CONR3, in which R3 = H, C1-4 alkyl, etc., NR3CO, CO2, OCO, etc; A = H, C1-8 alkyl, C3-7 cycloalkyl, or Ar; J = bond, C2-4 alkylene, etc.; G = (CH2)m, in which m = 2, 3, or 4, or CR6R7 in which R6 and R7 = H, C1-8 alkyl, etc.] and non-toxic salts thereof, as well as processes for their prepn., and pharmaceutical agents contg. them. I are useful for prevention and/or treatment of diseases induced by overexpression or excess activity of gelatinases, for example, rheumatoid diseases, arthroseitis, unusual bone resorption, osteoporosis, periodontitis,

interstitial nephritis, arteriosclerosis, pulmonary emphysema, cirrhosis, corneal injury, metastasis/invasion/growth of tumor cells, autoimmune disease (Crohn's disease, Sjogren's syndrome, etc.), diseases caused by vascular emigration or infiltration of leukocytes, or arterialization, in animals and esp. in human beings. Approx. 13 I were prep'd., and test results for 4 compds. are given. For instance, 4-O2NC6H4SO2Cl reacted with H2NCH2CO2CMe3.HCl in pyridine to give 4-O2NC6H4SO2NHCH2CO2CMe3, which underwent a sequence of hydrogenation to the amine, amidation with 4-MeC6H4COCl, deprotection of the tert-Bu ester with aq. CF3CO2H, amidation of the resultant acid with PhCH2ONH2.HCl, and hydrogenolytic debenzylation, to give title compd. II. In a test for inhibition of human gelatinase A in vitro, title compd. III had an IC50 of 0.00023 .mu.M.

=> d hitstr 7

L5 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2003 ACS
IT 188131-43-3P 188131-44-4P 188131-45-5P

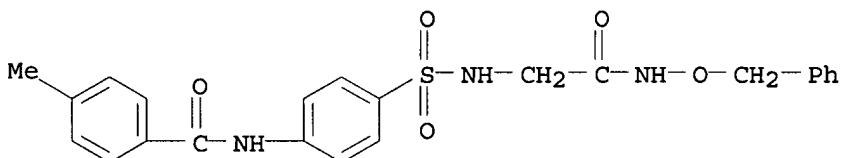
188131-46-6P 188131-47-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of hydroxamic acid derivs. as gelatinase inhibitors)

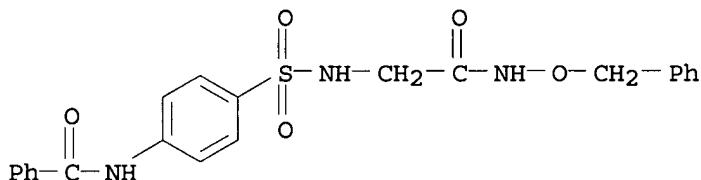
RN 188131-43-3 CAPLUS

CN Benzamide, 4-methyl-N-[4-[[[2-oxo-2-[(phenylmethoxy)amino]ethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



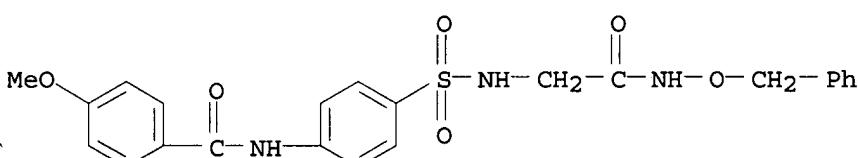
RN 188131-44-4 CAPLUS

CN Benzamide, N-[4-[[[2-oxo-2-[(phenylmethoxy)amino]ethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 188131-45-5 CAPLUS

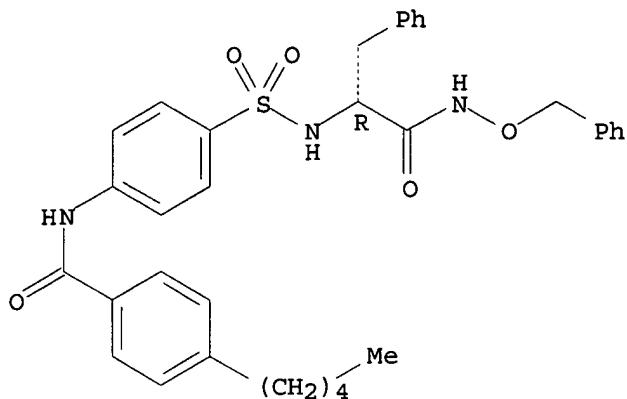
CN Benzamide, 4-methoxy-N-[4-[[[2-oxo-2-[(phenylmethoxy)amino]ethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 188131-46-6 CAPLUS

CN Benzenepropanamide, .alpha.-[[[4-[(4-pentylbenzoyl)amino]phenyl]sulfonyl]amino]-N-(phenylmethoxy)-, (R)- (9CI) (CA INDEX NAME)

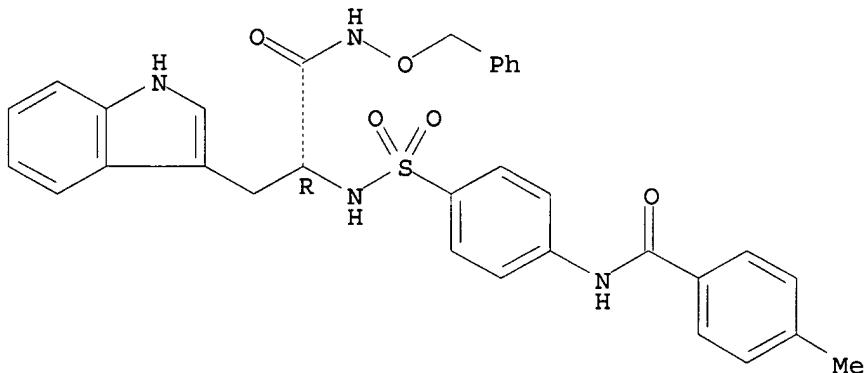
Absolute stereochemistry.



RN 188131-47-7 CAPLUS

CN 1H-Indole-3-propanamide, .alpha.-[[[4-[(4-methylbenzoyl)amino]phenyl]sulfonyl]amino]-N-(phenylmethoxy)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 188131-48-8P 188131-49-9P 188131-50-2P

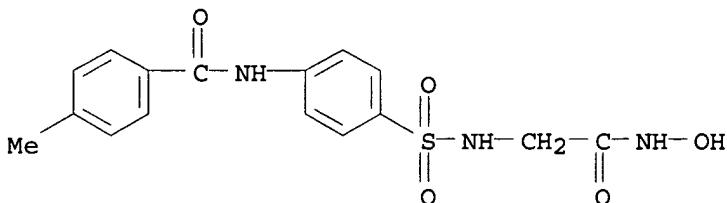
188131-51-3P 188131-52-4P 188131-53-5P

188131-54-6P 188131-55-7P 188131-56-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of hydroxamic acid derivs. as gelatinase inhibitors)

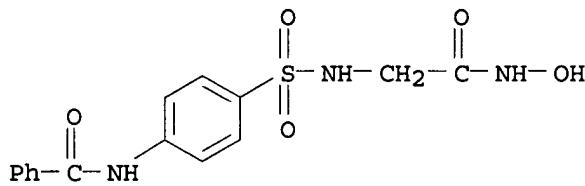
RN 188131-48-8 CAPLUS

CN Benzamide, N-[4-[[[2-(hydroxyamino)-2-oxoethyl]amino]sulfonyl]phenyl]-4-methyl- (9CI) (CA INDEX NAME)



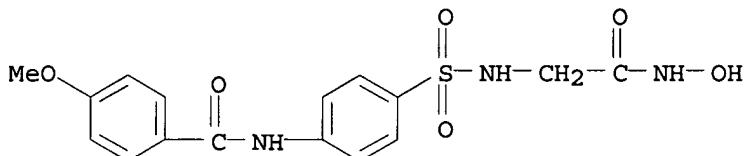
RN 188131-49-9 CAPLUS

CN Benzamide, N-[4-[[[2-(hydroxyamino)-2-oxoethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 188131-50-2 CAPLUS

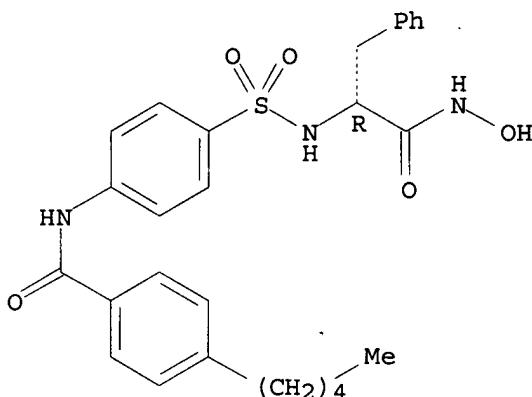
CN Benzamide, N-[4-[[2-(hydroxyamino)-2-oxoethyl]amino]sulfonyl]phenyl]-4-methoxy- (9CI) (CA INDEX NAME)



RN 188131-51-3 CAPLUS

CN Benzenepropanamide, N-hydroxy-.alpha.-[[[4-[(4-pentylbenzoyl)amino]phenyl]sulfonyl]amino]-, (.alpha.R)- (9CI) (CA INDEX NAME)

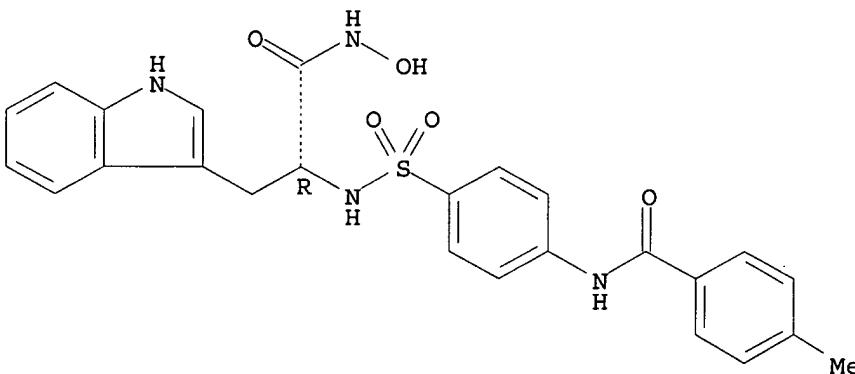
Absolute stereochemistry.

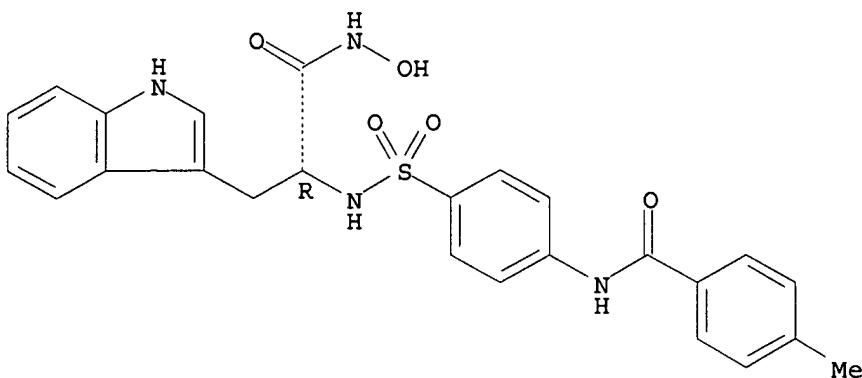


RN 188131-52-4 CAPLUS

CN 1H-Indole-3-propanamide, N-hydroxy-.alpha.-[[[4-[(4-methylbenzoyl)amino]phenyl]sulfonyl]amino]-, (R)- (9CI) (CA INDEX NAME)

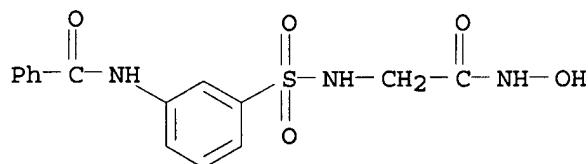
Absolute stereochemistry.





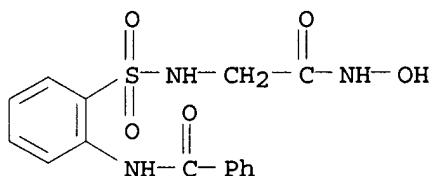
RN 188131-53-5 CAPLUS

CN Benzamide, N-[3-[[[2-(hydroxyamino)-2-oxoethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 188131-54-6 CAPLUS

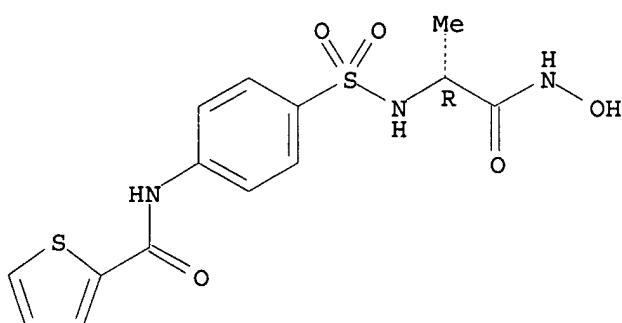
CN Benzamide, N-[2-[[[2-(hydroxyamino)-2-oxoethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 188131-55-7 CAPLUS

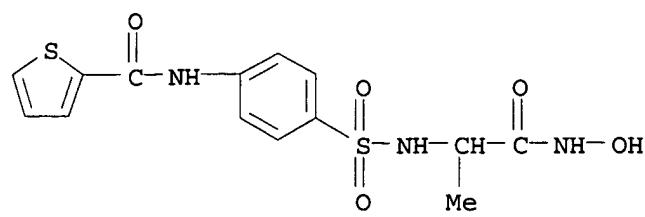
CN 2-Thiophenecarboxamide, N-[4-[[[2-(hydroxyamino)-1-methyl-2-oxoethyl]amino]sulfonyl]phenyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



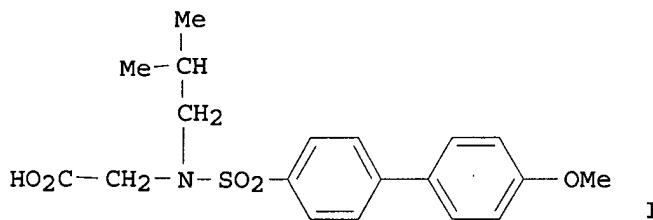
RN 188131-56-8 CAPLUS

CN 2-Thiophenecarboxamide, N-[4-[[[2-(hydroxyamino)-1-methyl-2-oxoethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

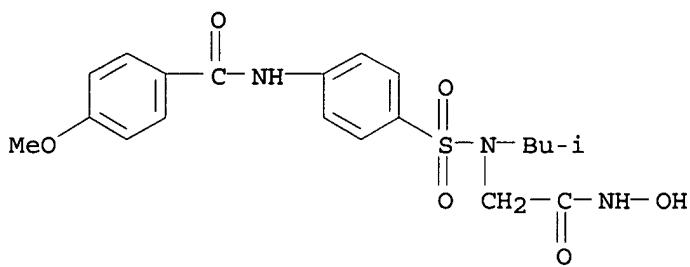


AN 1999:556750 CAPLUS
 DN 131:184758
 TI Preparation of benzenesulfonylamine derivatives as matrix metalloproteinase inhibitors
 IN Toyama, Takeshi; Toyama, Itaru; Yagisawa, Takashi; Noda, Atsushi; Kobayashi, Yoshinori
 PA Kotobuki Seiyaku Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN CNT 1

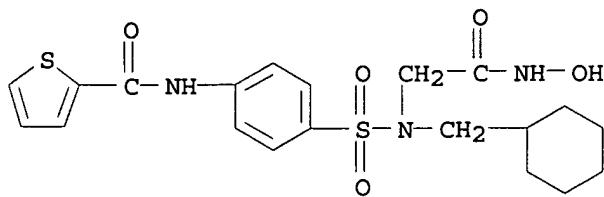
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------------|------|----------|-----------------|--------------|
| PI JP 11236369 | A2 | 19990831 | JP 1998-40122 | 19980223 <-- |
| PRAI JP 1998-40122 | | 19980223 | | |
| OS MARPAT 131:184758 | | | | |
| GI | | | | |



AB The title compds. $R_2CH_2N(CH_2R_1)SO_2A$ [R1 = alkyl, etc.; R2 = CO₂H, etc.; A = R₄R₅, etc.; R₄ = phenylene, etc.; R₅ = (un)substituted Ph, thienyl] are prepd. The title compd. I in vitro showed IC₅₀ of 2.9×10^{-7} M against MMP-2.
 IT 240415-88-7P 240415-97-8P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of benzenesulfonylamine derivs. as matrix metalloproteinase inhibitors)
 RN 240415-88-7 CAPLUS
 CN Benzamide, N-[4-[[[2-(hydroxyamino)-2-oxoethyl](2-methylpropyl)amino]sulfonyl]phenyl]-4-methoxy- (9CI) (CA INDEX NAME)



RN 240415-97-8 CAPLUS
 CN 2-Thiophenecarboxamide, N-[4-[[cyclohexylmethyl][2-(hydroxyamino)-2-oxoethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

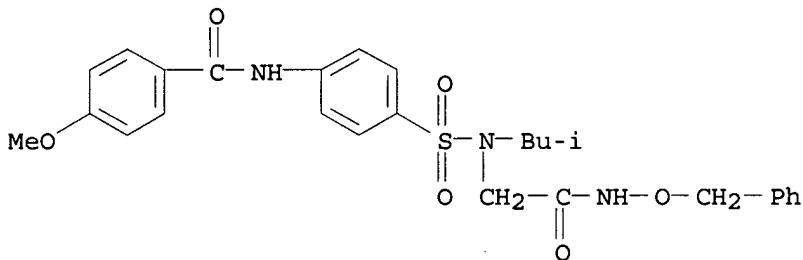


IT 240416-33-5P 240416-35-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of benzenesulfonylamine derivs. as matrix metalloproteinase inhibitors)

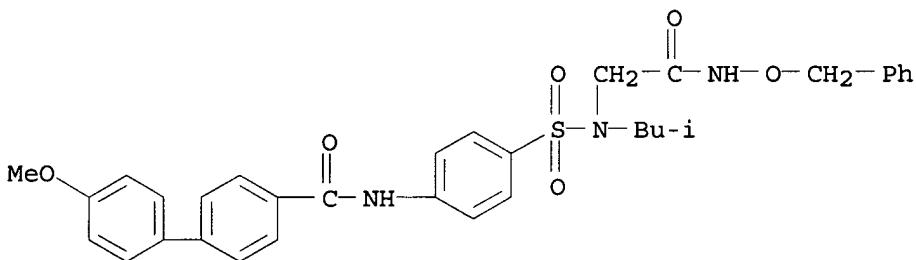
RN 240416-33-5 CAPLUS

CN Benzamide, 4-methoxy-N-[4-[(2-methylpropyl)[2-oxo-2-[(phenylmethoxy)amino]ethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



RN 240416-35-7 CAPLUS

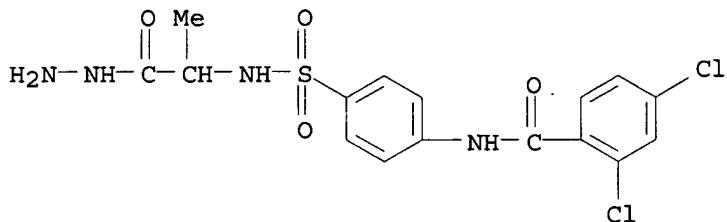
CN [1,1'-Biphenyl]-4-carboxamide, 4'-methoxy-N-[4-[(2-methylpropyl)[2-oxo-2-[(phenylmethoxy)amino]ethyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)



AN 1991:608506 CAPLUS
DN 115:208506
TI Some novel sulfanilyl amino acid derivatives
AU El-Sayed, Ragab A.
CS Fac. Sci., Al-Azhar Univ., Nasr, Egypt
SO Journal of the Serbian Chemical Society (1991), 56(6), 311-18
CODEN: JSCSEN; ISSN: 0352-5139
DT Journal
LA English
AB The title amino acid derivs. $2,4\text{-Cl}_2\text{C}_6\text{H}_4\text{CONHC}_6\text{H}_4\text{SO}_2\text{R-4}$ (I; R = X-OH; X = Gly, DL-Ala, β -Ala, Val, DL-Val, Leu, DL-Leu, DL-Ser, Phe, Tyr) were prep'd. by coupling of the corresponding amino acids with sulfonyl chloride I (R = Cl). Amino acid derivs I (R = X-OH) were esterified to give esters I (R = X-OMe) or coupled with amino acid esters to give dipeptide esters I (R = X-X1-OMe; X1 = Gly, DL-Ala, Leu). Esters I (R = X-OMe, X-X1-OMe) were also converted to the corresponding hydrazides I (R = X-NHNH₂, X-X1-NHNH₂). Prep'd. amino acid and dipeptide derivs. I were active as bactericides and fungicides.

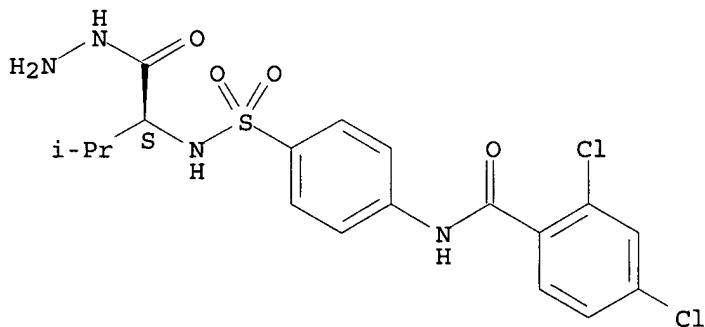
> d hitstr 9

L5 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2003 ACS
IT 136714-01-7P 136714-02-8P 136714-03-9P
136714-04-0P 136714-05-1P 136714-06-2P
136714-22-2P 136714-23-3P 136714-24-4P
136714-25-5P 136714-26-6P 136714-27-7P
136714-28-8P 136714-29-9P 136714-30-2P
136714-31-3P 136714-32-4P 136714-33-5P
136714-34-6P 136714-35-7P 136714-36-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and bactericidal and fungicidal activity of)
RN 136714-01-7 CAPLUS
CN Alanine, N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-, hydrazide (9CI) (CA INDEX NAME)

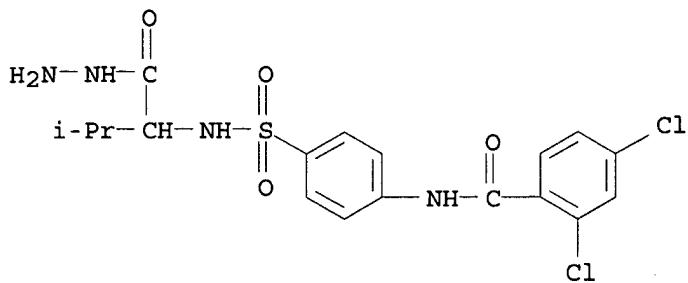


RN 136714-02-8 CAPLUS
CN L-Valine, N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-, hydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

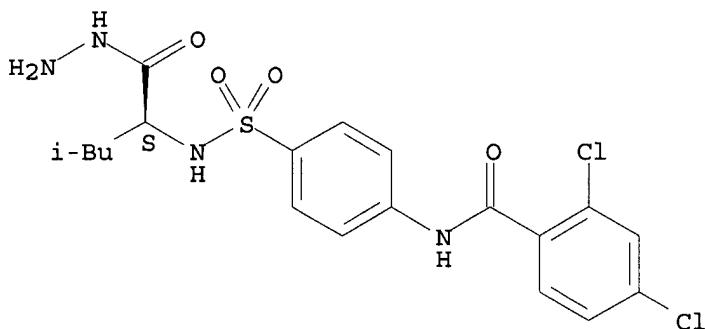


RN 136714-03-9 CAPLUS
CN Valine, N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-, hydrazide (9CI) (CA INDEX NAME)

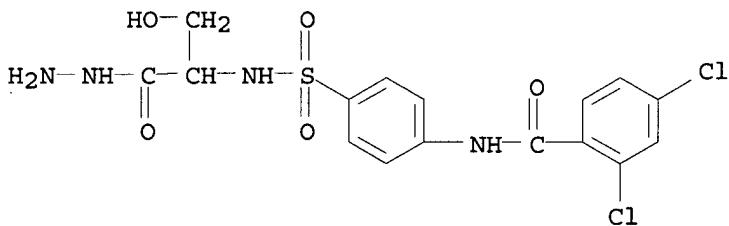


RN 136714-04-0 CAPLUS
 CN L-Leucine, N-[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-, hydrazide
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

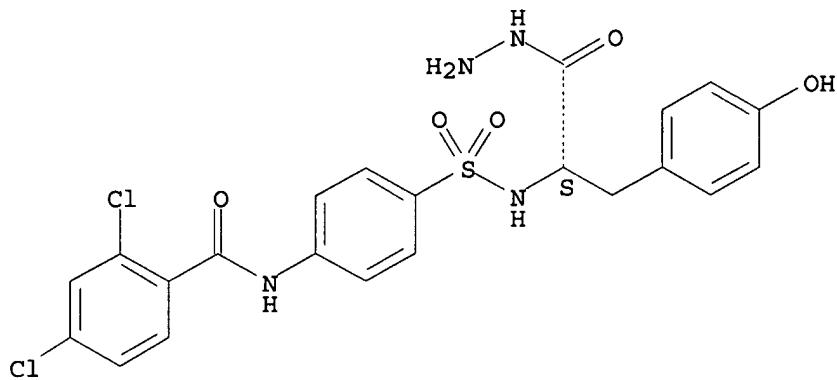


RN 136714-05-1 CAPLUS
 CN Serine, N-[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-, hydrazide
 (9CI) (CA INDEX NAME)



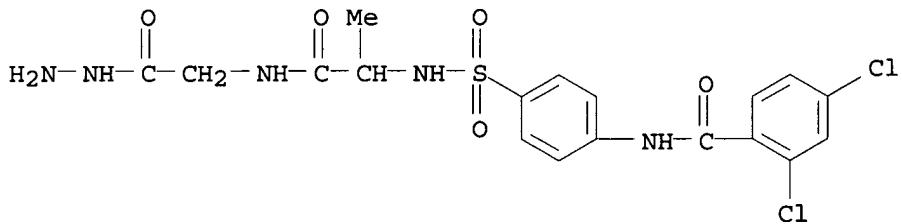
RN 136714-06-2 CAPLUS
 CN L-Tyrosine, N-[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-, hydrazide
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136714-22-2 CAPLUS

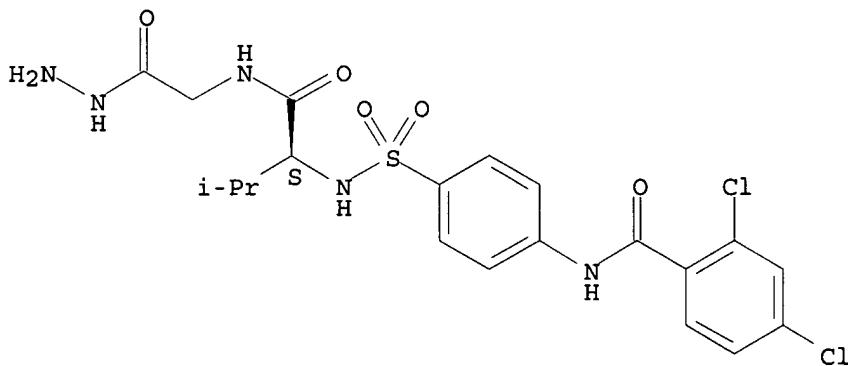
CN Glycine, N-[N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]alanyl]-, hydrazide (9CI) (CA INDEX NAME)



RN 136714-23-3 CAPLUS

CN Glycine, N-[N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-valyl]-, hydrazide (9CI) (CA INDEX NAME)

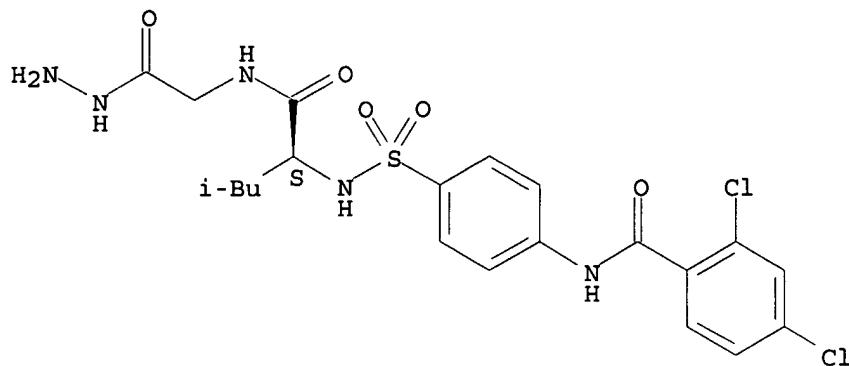
Absolute stereochemistry.



RN 136714-24-4 CAPLUS

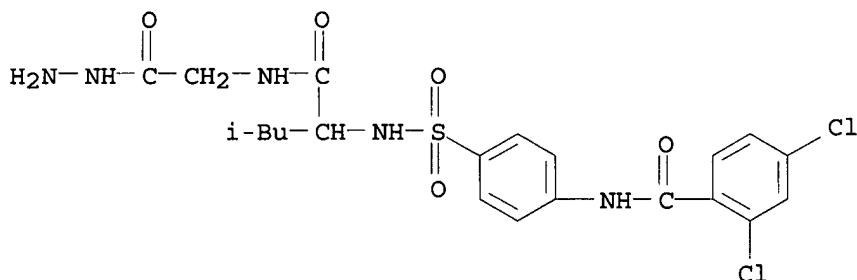
CN Glycine, N-[N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-leucyl]-, hydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136714-25-5 CAPLUS

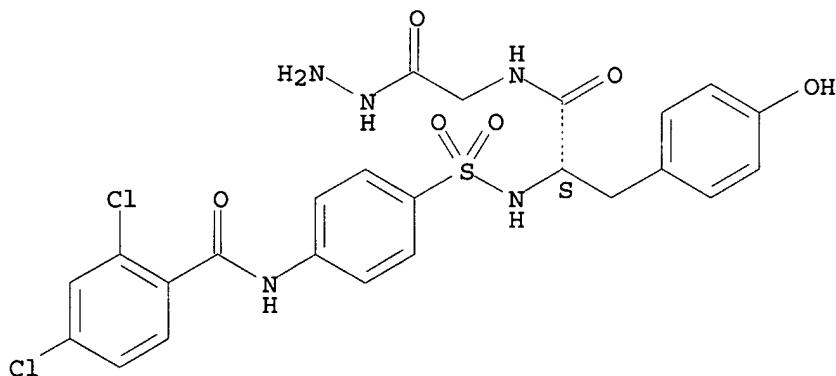
CN Glycine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]leucyl]hydrazide (9CI) (CA INDEX NAME)



RN 136714-26-6 CAPLUS

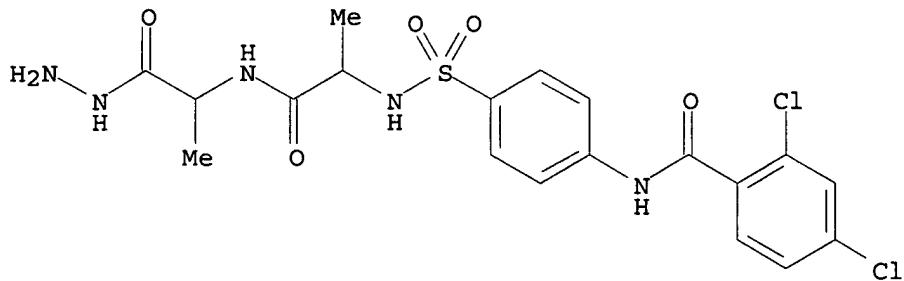
CN Glycine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-tyrosyl]hydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136714-27-7 CAPLUS

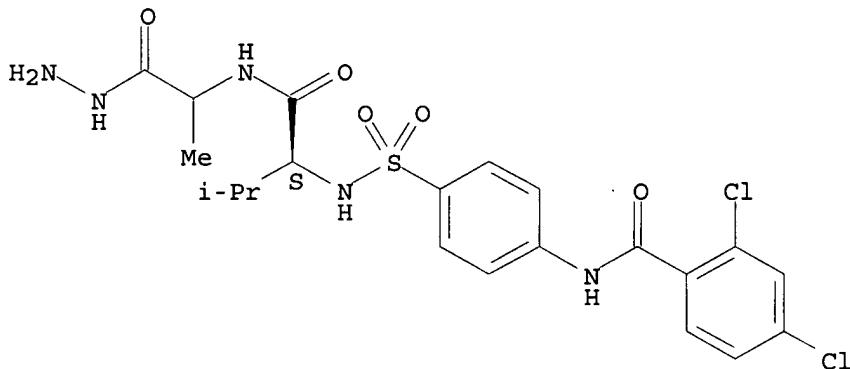
CN Alanine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]alanyl]hydrazide (9CI) (CA INDEX NAME)



RN 136714-28-8 CAPLUS

CN Alanine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-valyl]-, hydrazide (9CI) (CA INDEX NAME)

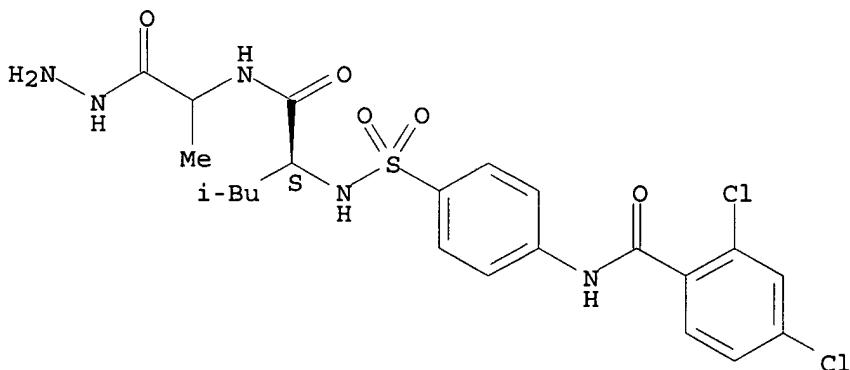
Absolute stereochemistry.



RN 136714-29-9 CAPLUS

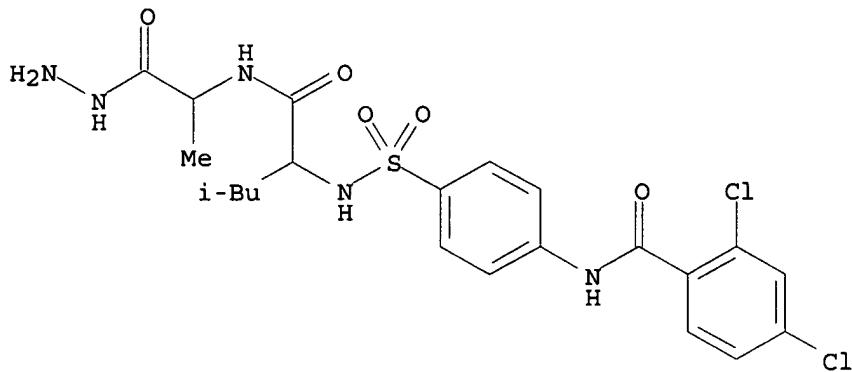
CN Alanine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-leucyl]-, hydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136714-30-2 CAPLUS

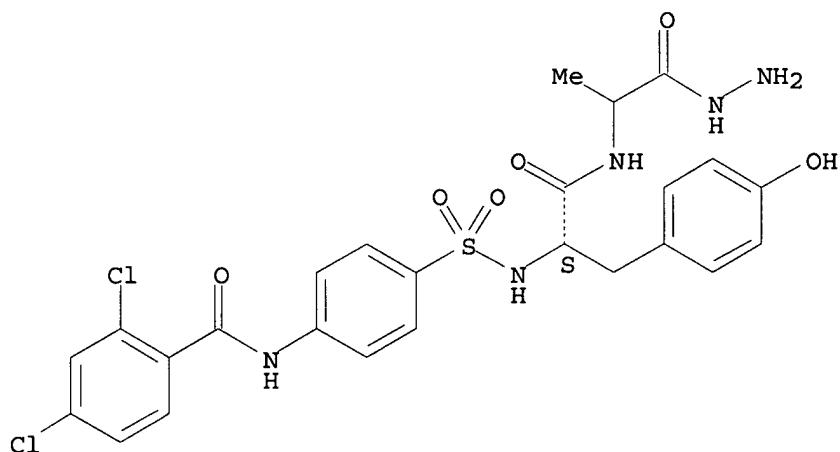
CN Alanine, N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]leucyl-, hydrazide (9CI) (CA INDEX NAME)



RN 136714-31-3 CAPLUS

CN Alanine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-tyrosyl]-, hydrazide (9CI) (CA INDEX NAME)

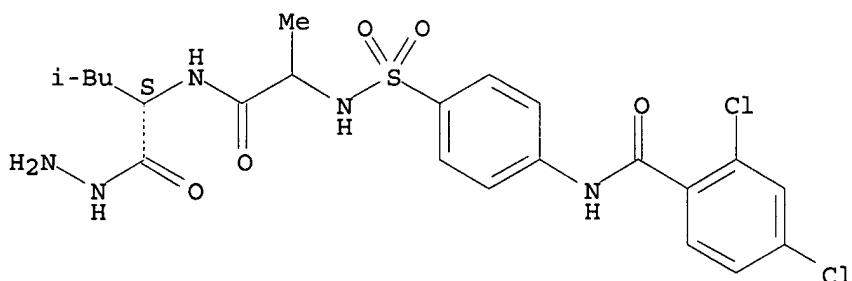
Absolute stereochemistry.



RN 136714-32-4 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]alanyl]-, hydrazide (9CI) (CA INDEX NAME)

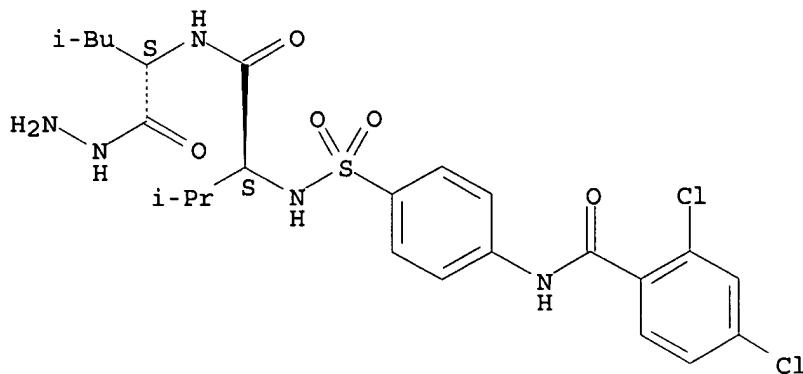
Absolute stereochemistry.



RN 136714-33-5 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-valyl]-, hydrazide (9CI) (CA INDEX NAME)

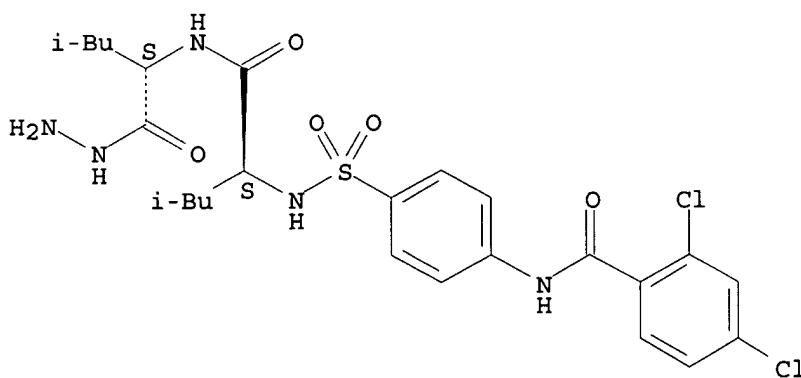
Absolute stereochemistry.



RN 136714-34-6 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-leucyl]-, hydrazide (9CI) (CA INDEX NAME)

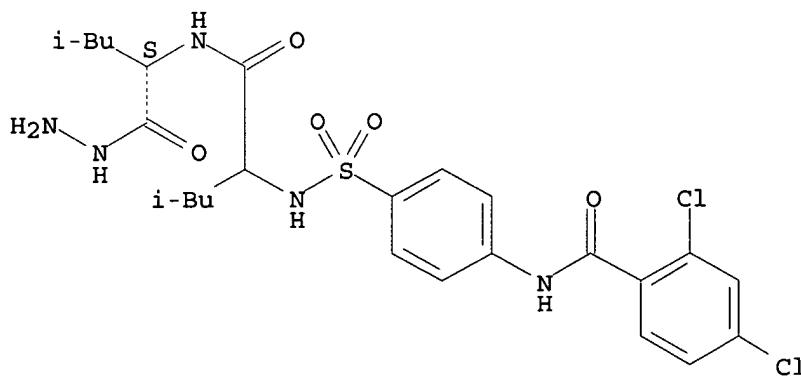
Absolute stereochemistry.



RN 136714-35-7 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]leucyl]-, hydrazide (9CI) (CA INDEX NAME)

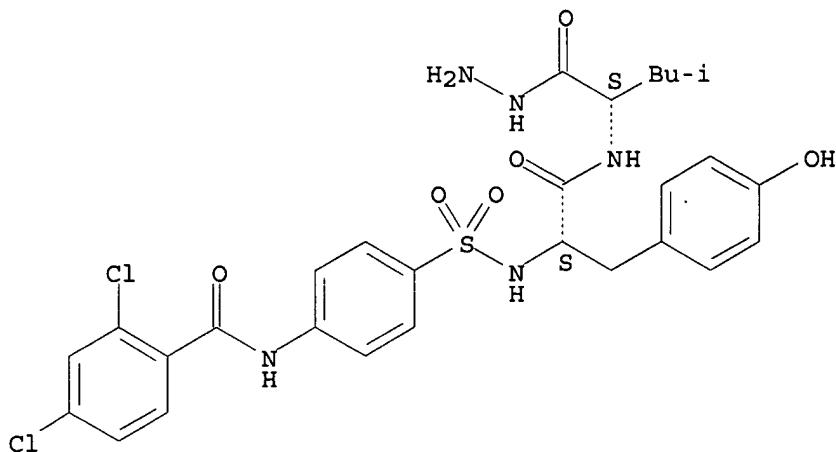
Absolute stereochemistry.



RN 136714-36-8 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]-L-tyrosyl]-, hydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

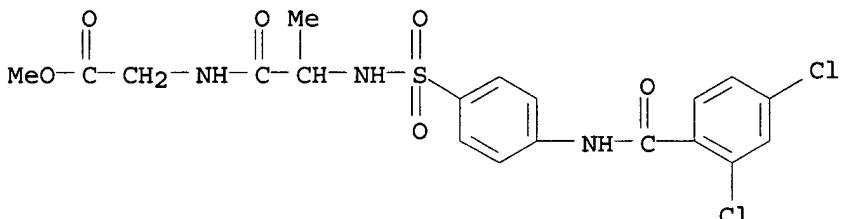


| | | | |
|----|--------------|--------------|--------------|
| IT | 136714-07-3P | 136714-08-4P | 136714-09-5P |
| | 136714-10-8P | 136714-11-9P | 136714-12-0P |
| | 136714-13-1P | 136714-14-2P | 136714-15-3P |
| | 136714-16-4P | 136714-17-5P | 136714-18-6P |
| | 136714-19-7P | 136714-20-0P | 136714-21-1P |

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn., hydrazinyl)

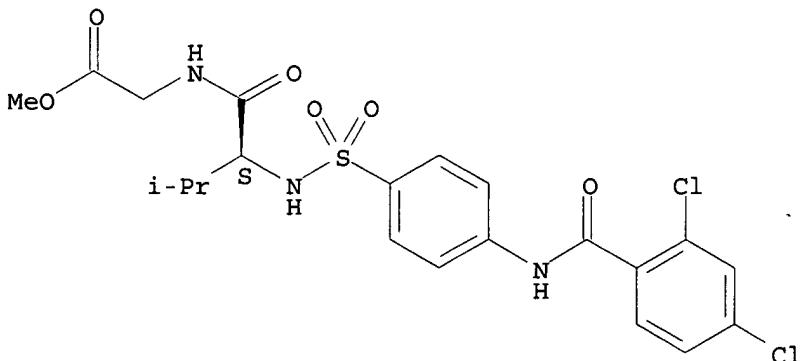
RN 136714-07-3 CAPLUS
CN Glycine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]alanyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 136714-08-4 CAPLUS

CN Glycine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-valyl]-, methyl ester (9CI) (CA INDEX NAME)

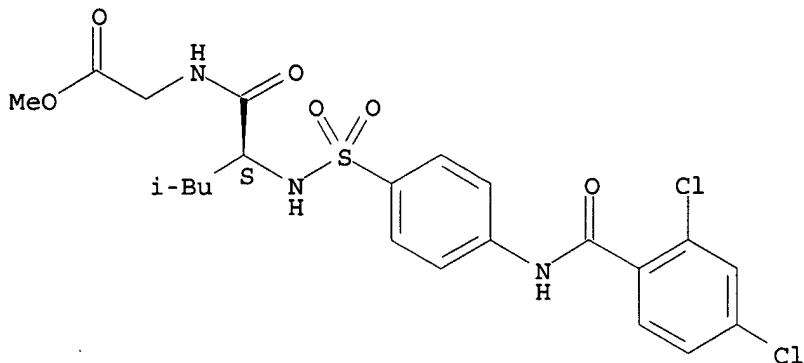
Absolute stereochemistry.



RN 136714-09-5 CAPLUS

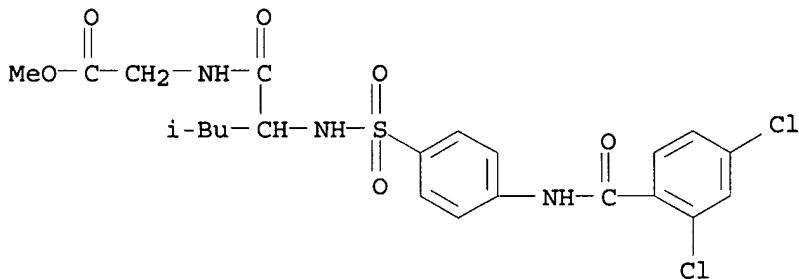
CN Glycine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]-L-leucyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136714-10-8 CAPLUS

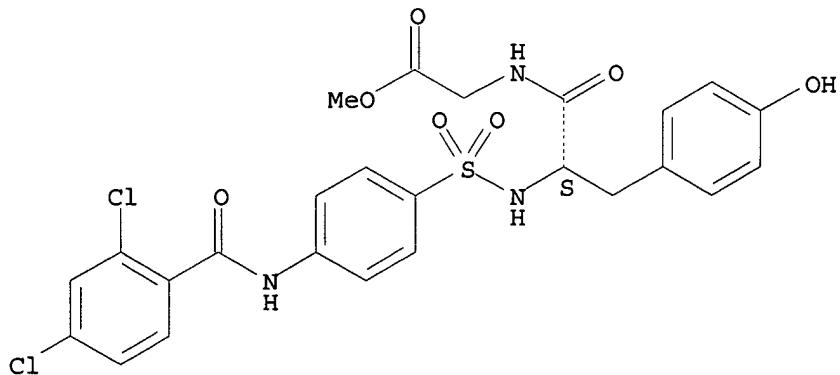
CN Glycine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]leucyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 136714-11-9 CAPLUS

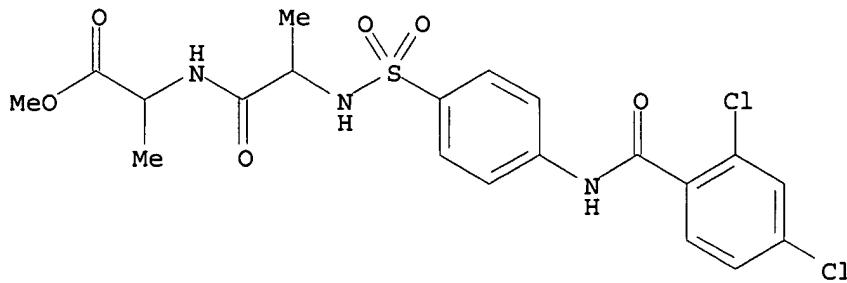
CN Glycine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]-L-tyrosyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136714-12-0 CAPLUS

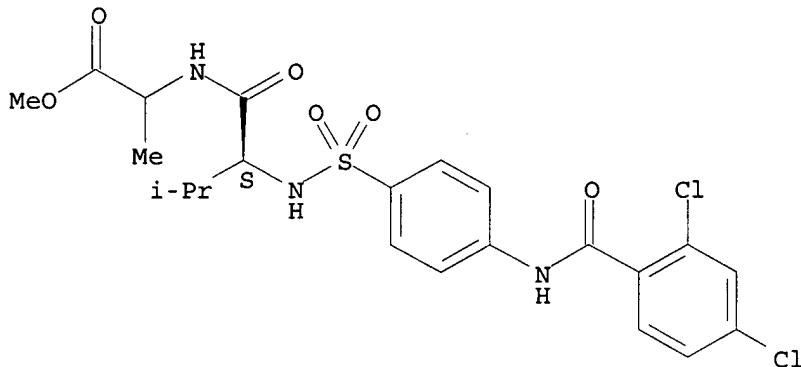
CN Alanine, N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl)sulfonyl]alanyl-, methyl ester (9CI) (CA INDEX NAME)



RN 136714-13-1 CAPLUS

CN Alanine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-valyl]-, methyl ester (9CI) (CA INDEX NAME)

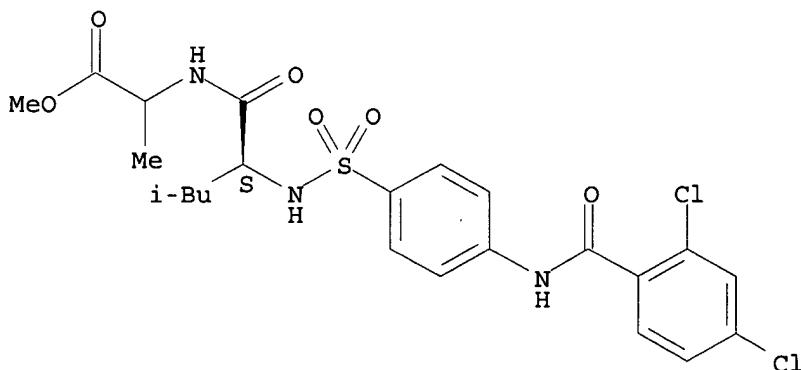
Absolute stereochemistry.



RN 136714-14-2 CAPLUS

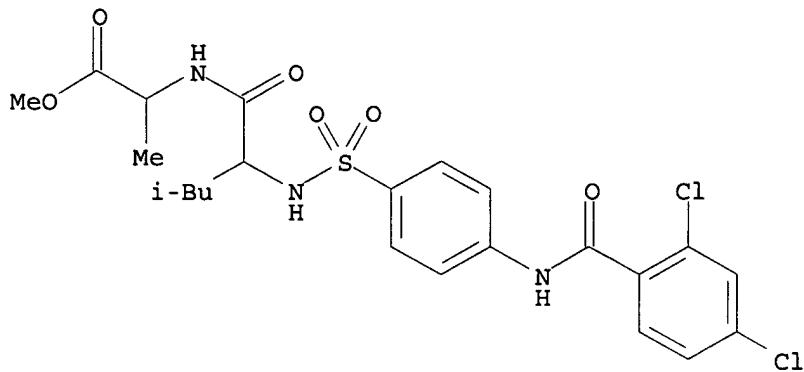
CN Alanine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-leucyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 136714-15-3 CAPLUS

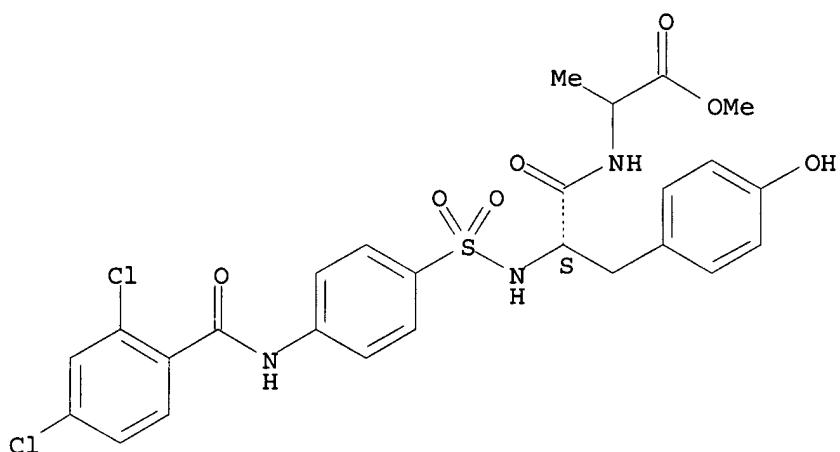
CN Alanine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]leucyl-], methyl ester (9CI) (CA INDEX NAME)



RN 136714-16-4 CAPLUS

CN Alanine, N-[N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-tyrosyl]-, methyl ester (9CI) (CA INDEX NAME)

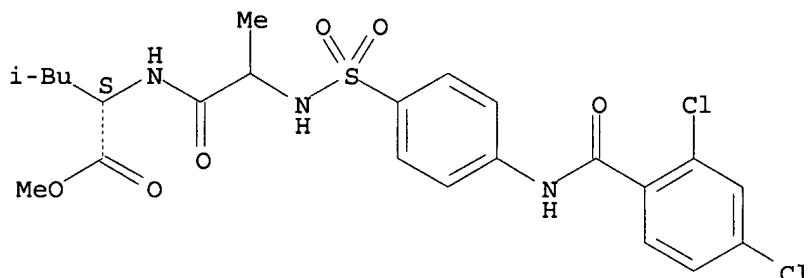
Absolute stereochemistry.



RN 136714-17-5 CAPLUS

CN L-Leucine, N-[N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]alanyl]-, methyl ester (9CI) (CA INDEX NAME)

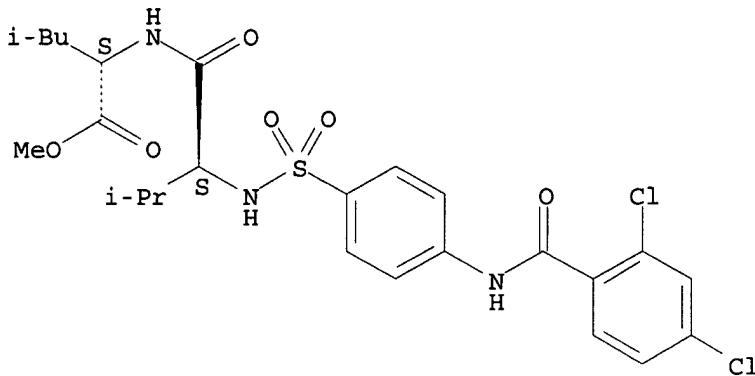
Absolute stereochemistry.



RN 136714-18-6 CAPLUS

CN L-Leucine, N-[N-[[4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-valyl]-, methyl ester (9CI) (CA INDEX NAME)

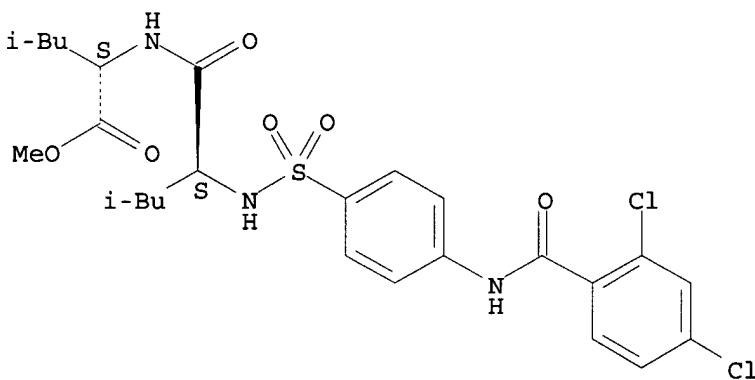
Absolute stereochemistry.



RN 136714-19-7 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-leucyl]-, methyl ester (9CI) (CA INDEX NAME)

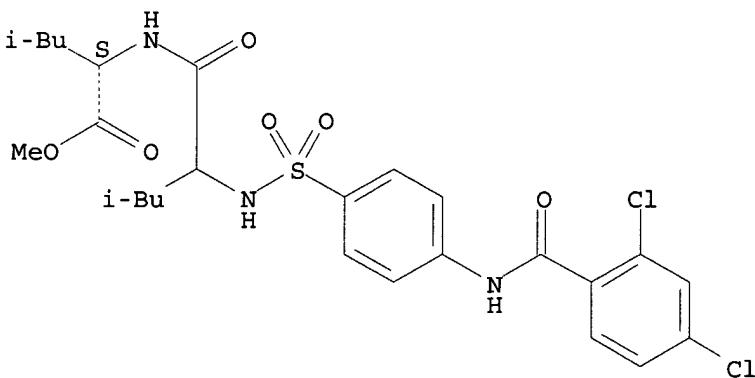
Absolute stereochemistry.



RN 136714-20-0 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]leucyl]-, methyl ester (9CI) (CA INDEX NAME)

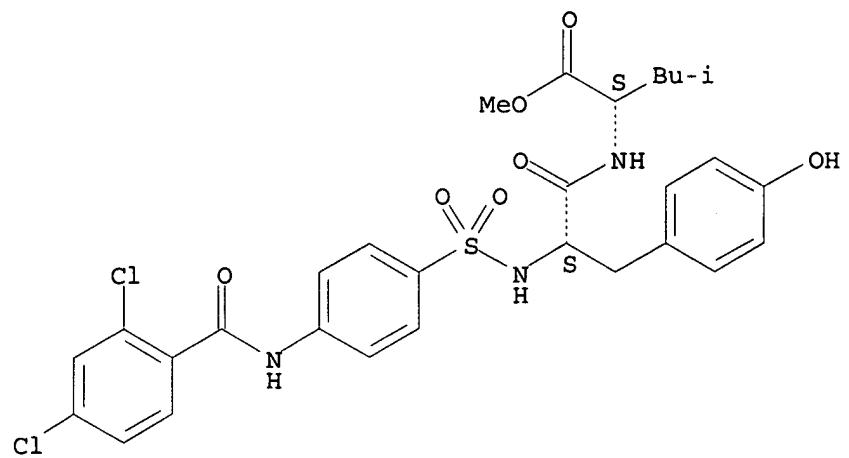
Absolute stereochemistry.



RN 136714-21-1 CAPLUS

CN L-Leucine, N-[N-[(4-[(2,4-dichlorobenzoyl)amino]phenyl]sulfonyl]-L-tyrosyl]-, methyl ester (9CI) (CA INDEX NAME)

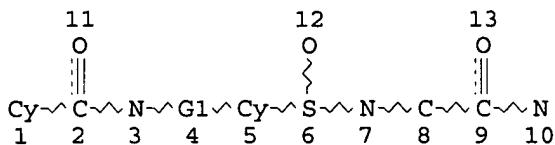
Absolute stereochemistry.



=> d 11

L1 HAS NO ANSWERS

L1 STR



REP G1=(0-3) CH2

NODE ATTRIBUTES:

NSPEC IS R AT 10

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

GGCAT IS UNS AT 5

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

=> s 11 ful

FULL SEARCH INITIATED 16:23:19 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 16325 TO ITERATE

100.0% PROCESSED 16325 ITERATIONS
SEARCH TIME: 00.00.01

2 ANSWERS

L3 2 SEA SSS FUL L1

=> d 1-2

L3 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS

RN 103891-80-1 REGISTRY

CN Benzamide, N-[4-[[[5-amino-1-[[4-(phenylmethyl)-1-piperidinyl]carbonyl]pentyl]amino]sulfonyl]phenyl]-, (S)- (9CI) (CA INDEX NAME)

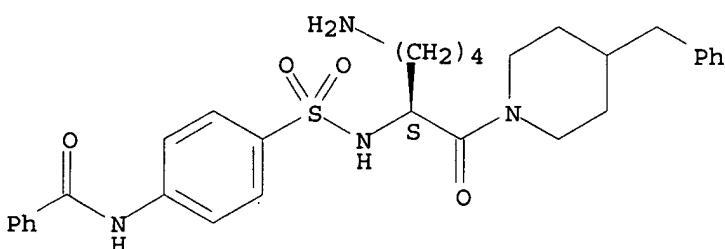
FS STEREOSEARCH

MF C31 H38 N4 O4 S

SR CA

LC STN Files: CA, CAPLUS

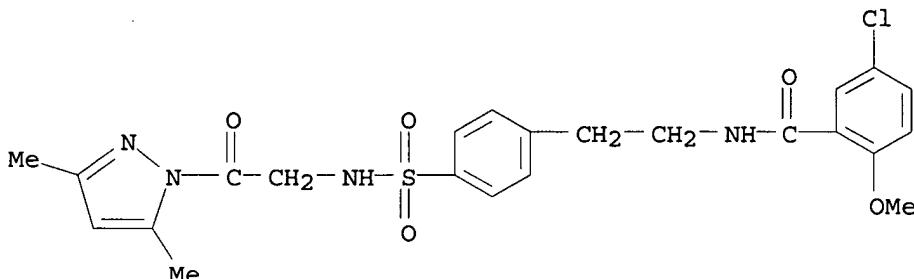
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS
RN 57891-05-1 REGISTRY
CN Benzamide, 5-chloro-N-[2-[4-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C23 H25 Cl N4 O5 S
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

| => fil caplus | | SINCE FILE | TOTAL |
|----------------------|--|------------|---------|
| COST IN U.S. DOLLARS | | ENTRY | SESSION |
| FULL ESTIMATED COST | | 152.71 | 152.92 |

FILE 'CAPLUS' ENTERED AT 16:23:35 ON 05 MAR 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 5 Mar 2003 VOL 138 ISS 10
FILE LAST UPDATED: 4 Mar 2003 (20030304/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

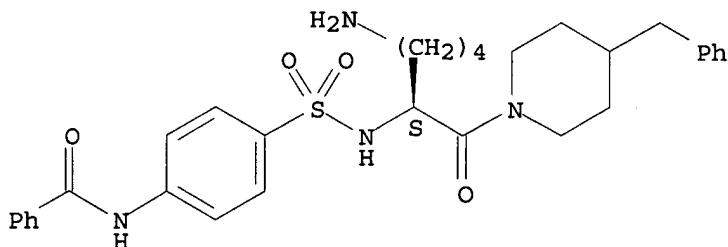
=> s 13
L4 4 L3

=> d bib abs hitstr 1-4

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 1986:497950 CAPLUS
DN 105:97950
TI Lysine derivative and proteinase inhibitor
IN Okamoto, Shosuke; Okada, Yoshio; Okunomiya, Akiko; Naito, Taketoshi;
Yamada, Morihiko; Kimura, Yoshio; Katsuura, Yasuhiro; Suzuki, Hiroshi;
Ohno, Norio; Seki, Yumi
PA Showa Denko K. K., Japan
SO Eur. Pat. Appl., 86 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|---------------------------|----------|-----------------|----------|
| PI | EP 183271 | A2 | 19860604 | EP 1985-115142 | 19851129 |
| | EP 183271 | A3 | 19870520 | | |
| | EP 183271 | B1 | 19900516 | | |
| | | R: CH, DE, FR, GB, LI, SE | | | |
| | JP 61130268 | A2 | 19860618 | JP 1984-251985 | 19841130 |
| | JP 61189255 | A2 | 19860822 | JP 1985-26556 | 19850215 |
| | JP 61218565 | A2 | 19860929 | JP 1985-56153 | 19850322 |
| | JP 62005945 | A2 | 19870112 | JP 1985-143852 | 19850702 |
| PRAI | JP 1984-251985 | | 19841130 | | |
| | JP 1985-26556 | | 19850215 | | |
| | JP 1985-56153 | | 19850322 | | |
| | JP 1985-143852 | | 19850702 | | |
| AB | Lysines R1Z1-Lys-R2 (R1 = carbocyclic or heterocyclic aryl; Z1 = SO ₂ , CO; R2 = NH ₂ , substituted amino), which were prep'd., showed plasmin inhibition activity. N ₂ -(p-Toluenesulfonyl)-L-lysine 4-benzylpiperidide was prep'd. from N ₆ -(benzylloxycarbonyl)lysine in a series of reactions. | | | | |
| IT | 103891-80-1P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as plasmin inhibitor) | | | | |
| RN | 103891-80-1 CAPLUS | | | | |
| CN | Benzamide, N-[4-[[[5-amino-1-[[4-(phenylmethyl)-1-piperidinyl]carbonyl]pentyl]amino]sulfonyl]phenyl]-, (S)- (9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.

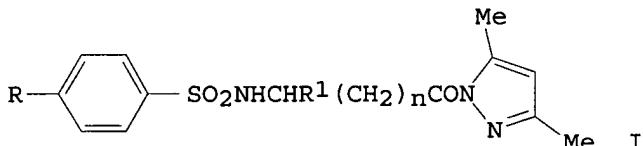


L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 1977:484998 CAPLUS
DN 87:84998
TI Pyrazole derivatives
PA Kyorin Pharmaceutical Co., Ltd., Japan
SO Fr. Demande, 21 pp.
CODEN: FRXXBL
DT Patent

LA French

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | FR 2312242 | A1 | 19761224 | FR 1975-16940 | 19750530 |
| | FR 2312242 | B1 | 19800430 | | |
| PRAI | FR 1975-16940 | | 19750530 | | |
| GI | | | | | |



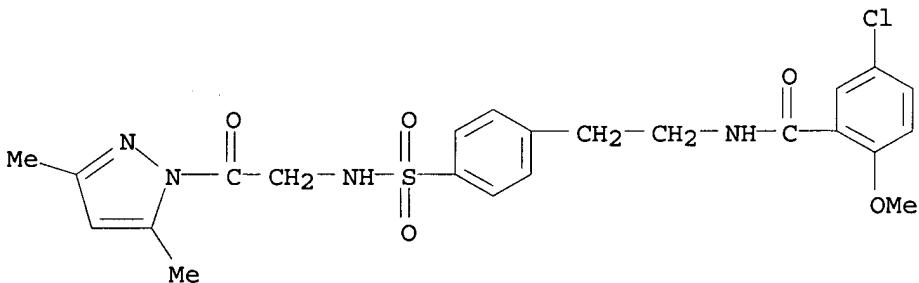
AB Pyrazoles I [R = MeCONHCH₂CH₂, Cl, EtO₂CNHCH₂CH₂, R₁ = H, n = 0, 1; R = H, pyrazinylcarboxamidoethyl, R₁ = H, n = 1; R = 5,2-Cl(MeO)C₆H₃CONHCH₂CH₂, cyclohexyl, Me₂CHCH₂, R₁ = H, n = 0; R = Cl, R₁ = Ph, Me, CH₂Ph, n = 0] were prep'd. by cyclizing 4-RC₆H₄SO₂NHCHR₁(CH₂)_nCONHNH₂ with Ac₂CH₂. I are antidiabetics. Thus, I [R = 5,2-Cl(MeO)C₆H₃CONHCH₂CH₂, R₁ = H, n = 0] at 100 mg/kg orally in rats caused a 48.1% decrease in blood sugar level 2 h after administration.

IT 57891-05-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and antidiabetic activity of)

RN 57891-05-1 CAPLUS

CN Benzamide, 5-chloro-N-[2-[4-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1977:89810 CAPLUS

DN 86:89810

TI Pyrazole derivatives

IN Irikura, Tsutomu

PA Kyorin Pharmaceutical Co., Ltd., Japan

SO Belg., 24 pp.

CODEN: BEXXAL

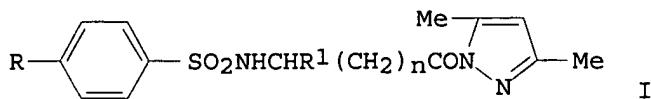
DT Patent

LA French

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | BE 829785 | A1 | 19751001 | BE 1975-156955 | 19750602 |
| PRAI | BE 1975-156955 | | 19750602 | | |

GI



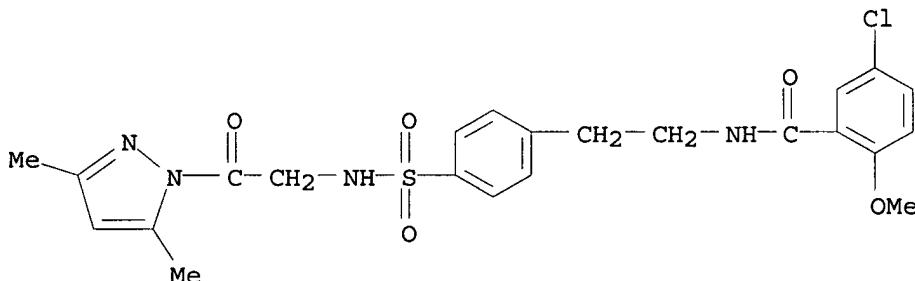
AB Pyrazoles I (R = H, AcNHCH2CH2, pyrazinylcarboxamidoethyl, EtO2CNHCH2CH2, Cl, R1 = H, n = 1; R = Cl, AcNHCH2CH2, EtO2CNHCH2CH2, 5,2-Cl(MeO)C6H3CONHCH2CH2, cyclohexyl, Me2CHCH2, R1 = H, n = 0; R = Cl, R1 = Ph, Me, PhCH2, n = 0) were prepd. by condensing 4-RC6H4SO2NHCHR1:CH2)nCONHNH2 with Ac2CH2. I at 100 mg/kg orally in rats gave 22.1-51.3% decrease in blood sugar level.

IT 57891-05-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and antidiabetic activity of)

RN 57891-05-1 CAPLUS

CN Benzamide, 5-chloro-N-[2-[4-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1976:59445 CAPLUS

DN 84:59445

TI Antidiabetic pyrazoles

IN Irikura, Tsutomu

PA Kyorin Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 50070367 | A2 | 19750611 | JP 1973-121974 | 19731030 |
| | JP 52038033 | B4 | 19770927 | | |
| PRAI | JP 1973-121974 | | 19731030 | | |

GI For diagram(s), see printed CA Issue.

AB Pyrazoles I [R = 2-acetylaminooethyl (Q), 2-ethoxycarbonylaminooethyl, 2-(2-methoxy-5-chlorobenzoylamino)ethyl, 2-(2-pyrazinecarboxylamino)ethyl (Q1), Me, iso-Bu, cyclohexyl, Cl; R1 = H, Me, Ph, pentyl; n = 0-1 when R1 = H; n = 0 when R1 = Me, Ph, pentyl] were prepd. by reaction of p-RC6H4SO2NHCHR1(CH2)nCONHNH2 with AcCH2Ac. Thus, refluxing 10 g N-benzenesulfonyl-.beta.-alanine hydrazide with 5 g AcCH2Ac in EtOH 3 hr gave 99% I (R = R1 = H, n = 1). Among 15 more I prepd. were the following

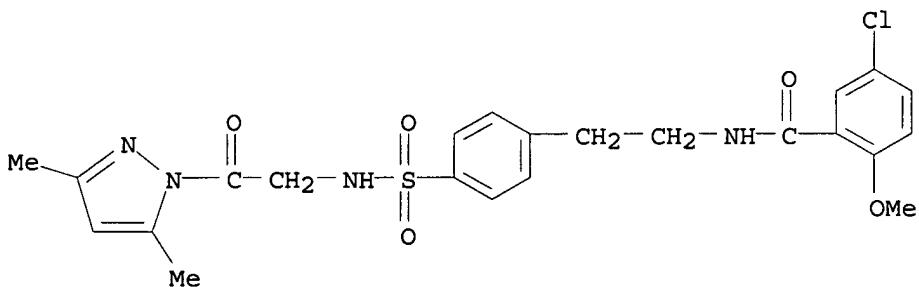
I (R, R1, n given): Me, H, 1; Q, H, 1; Q1, H, 1; and Cl, H, 0.

IT 57891-05-1P

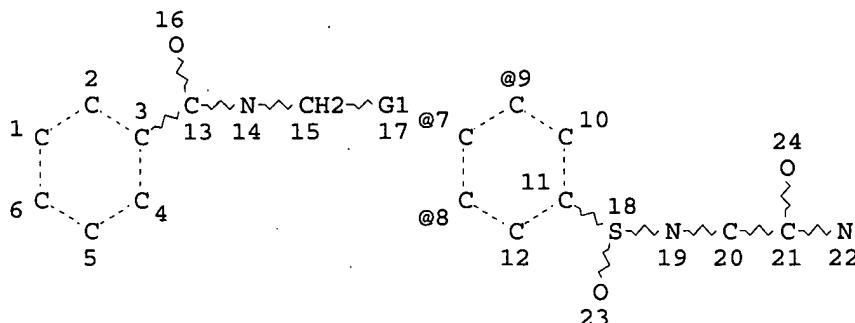
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiadiabetic activity of)

RN 57891-05-1 CAPLUS

CN Benzamide, 5-chloro-N-[2-[4-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



=> d 11
L1 HAS NO ANSWERS
L1 STR



VAR G1=7/8/9
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 8 4
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

=> s 11 ful
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FULL SCREEN SEARCH COMPLETED - 475 TO ITERATE

100.0% PROCESSED 475 ITERATIONS
SEARCH TIME: 00.00.01

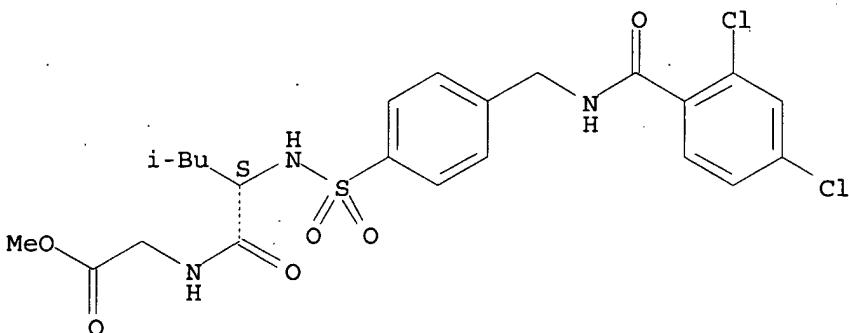
12 ANSWERS

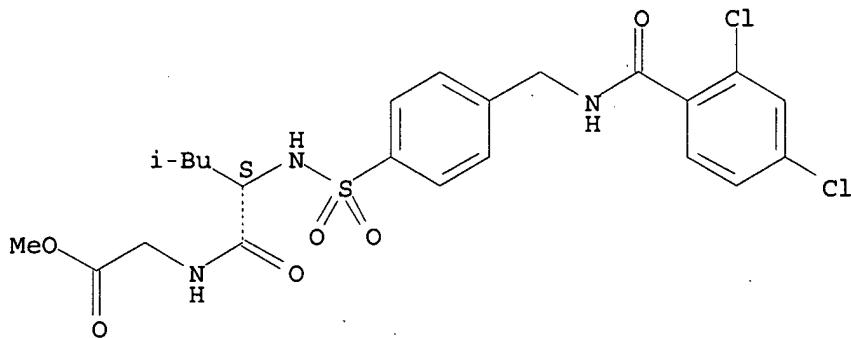
L3 12 SEA SSS FUL L1

=> d 1-12

L3 ANSWER 1 OF 12 REGISTRY COPYRIGHT 2003 ACS
RN 213475-13-9 REGISTRY
CN Glycine, N-[[4-[[2,4-dichlorobenzoyl]amino]methyl]phenyl]sulfonyl]-L-leucyl-, methyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H27 Cl2 N3 O6 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



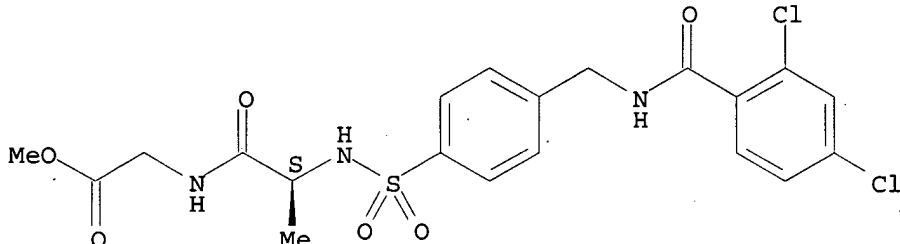


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213475-12-8 REGISTRY
 CN Glycine, N-[(4-[(2,4-dichlorobenzoyl)amino]methyl]phenylsulfonyl]-L-alanyl-, methyl ester (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C20 H21 Cl2 N3 O6 S
 SR CA
 LC STN Files: CA, CAPLUS

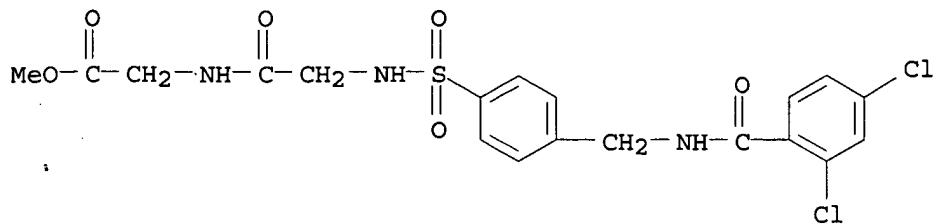
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213475-11-7 REGISTRY
 CN Glycine, N-[(4-[(2,4-dichlorobenzoyl)amino]methyl]phenylsulfonyl]glycyl-, methyl ester (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C19 H19 Cl2 N3 O6 S
 SR CA
 LC STN Files: CA, CAPLUS

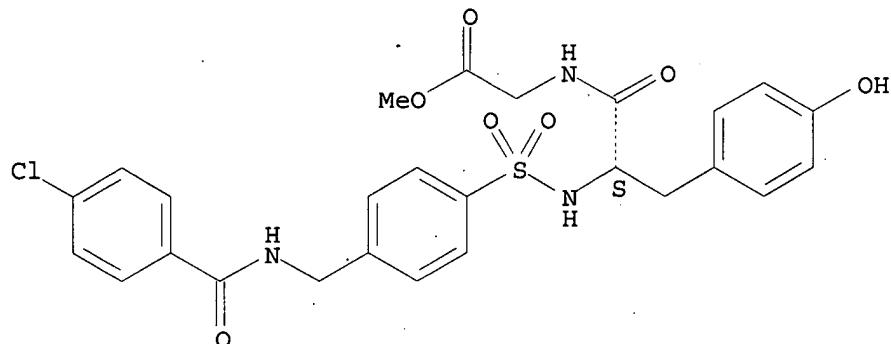


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213474-98-7 REGISTRY
 CN Glycine, N-[[4-[(4-chlorobenzoyl)amino]methyl]phenyl]sulfonyl-L-tyrosyl-methyl ester (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C26 H26 Cl N3 O7 S
 SR CA
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

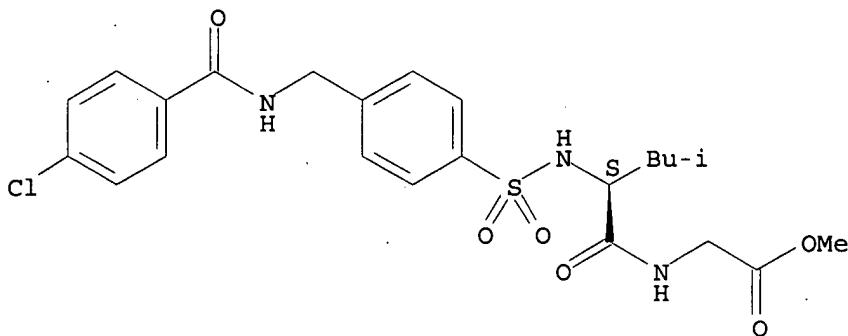


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213474-97-6 REGISTRY
 CN Glycine, N-[[4-[(4-chlorobenzoyl)amino]methyl]phenyl]sulfonyl-L-leucyl-methyl ester (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C23 H28 Cl N3 O6 S
 SR CA
 LC STN Files: CA, CAPLUS

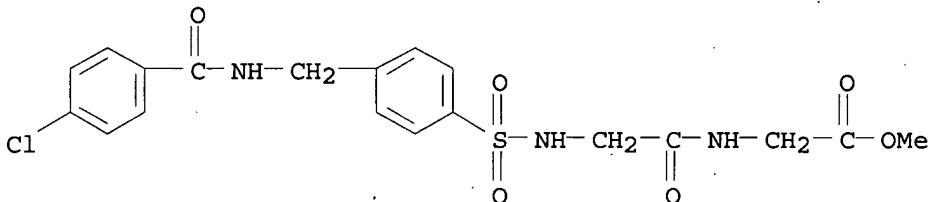
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213474-96-5 REGISTRY
 CN Glycine, N-[[4-[(4-chlorobenzoyl)amino]methyl]phenyl]sulfonyl]glycyl-,
 methyl ester (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C19 H20 Cl N3 O6 S
 SR CA
 LC STN Files: CA, CAPLUS

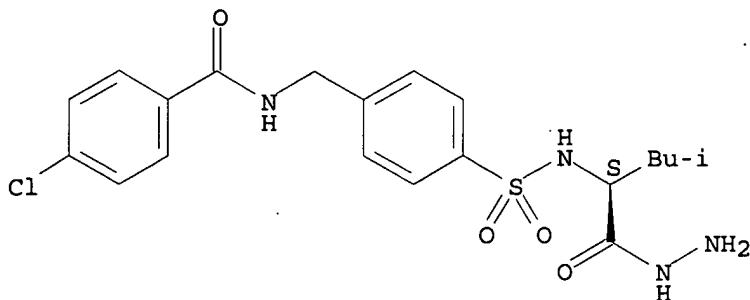


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213474-94-3 REGISTRY
 CN L-Leucine, N-[[4-[(4-chlorobenzoyl)amino]methyl]phenyl]sulfonyl]-,
 hydrazide (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C20 H25 Cl N4 O4 S
 SR CA
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

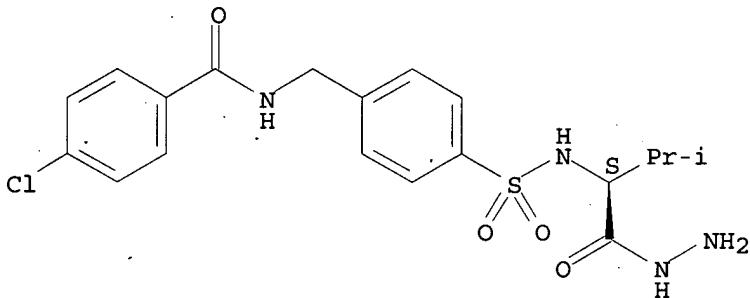


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213474-92-1 REGISTRY
 CN L-Valine, N-[(4-[(4-chlorobenzoyl)amino]methyl]phenyl]sulfonyl]hydrazide (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C19 H23 Cl N4 O4 S
 SR CA
 LC STN Files: CA, CAPLUS

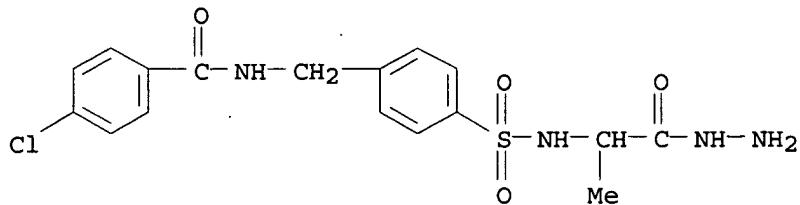
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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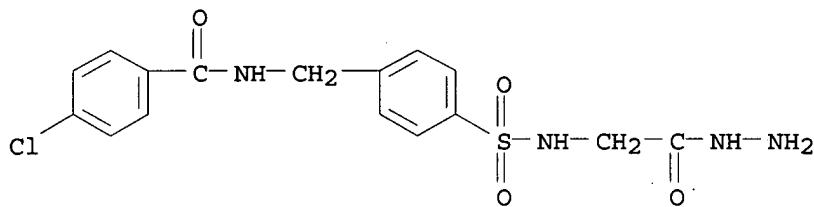
L3 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213474-90-9 REGISTRY
 CN Alanine, N-[(4-[(4-chlorobenzoyl)amino]methyl]phenyl]sulfonyl]hydrazide (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C17 H19 Cl N4 O4 S
 SR CA
 LC STN Files: CA, CAPLUS



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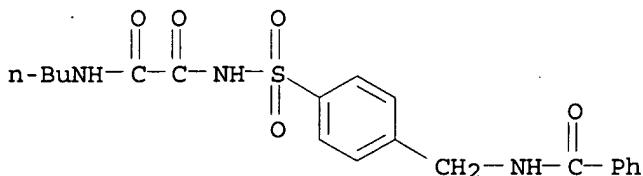
L3 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 213474-88-5 REGISTRY
 CN Glycine, N-[(4-[(4-chlorobenzoyl)amino]methyl)phenyl]sulfonyl-,
 hydrazide (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C16 H17 Cl N4 O4 S
 SR CA
 LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

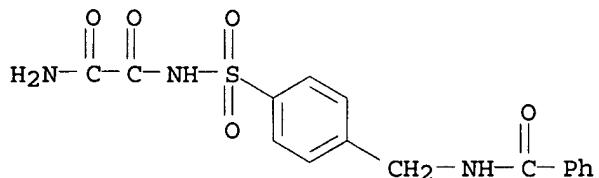
L3 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2003 ACS
 RN 91663-07-9 REGISTRY
 CN Ethanediamide, N-[(4-[(benzoylamino)methyl]phenyl)sulfonyl]-N'-butyl-
 (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C20 H23 N3 O5 S
 LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2003 ACS
RN 91663-06-8 REGISTRY
CN Ethanediamide, {[4-[(benzoylamino)methyl]phenyl]sulfonyl]- (9CI) (CA
INDEX NAME)
FS 3D CONCORD
MF C16 H15 N3 O5 S
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
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L4 4 L3

=> d bib abs 1-4

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1999:108539 CAPLUS

DN 130:223580

TI A facile synthesis and some new reactions of N-benzylcarboxamides with essential amino acids

AU El-Sayed, Ragab A.

CS Chemistry Department, Faculty of Science, Al-Azhar University, Nasr City, Egypt

SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1998), 37B(10), 1059-1062

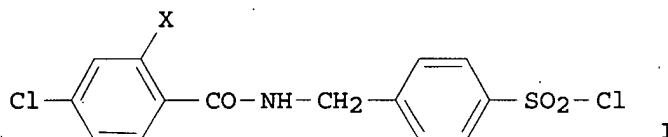
CODEN: IJSBDB; ISSN: 0376-4699

PB National Institute of Science Communication, CSIR

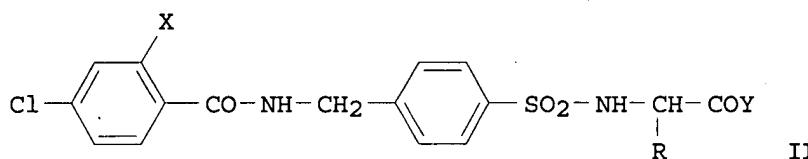
DT Journal

LA English

GI



I



II

AB N-benzyl-4-chlorobenzamide and N-benzyl-2,4-dichlorobenzamide react with chlorosulfonic acid to give the corresponding p-sulfonyl chlorides I (X = H, Cl), which on condensation with amino acids give amino acid derivs. II (R = H, Me, CHMe2, CH2CHMe2, CH2Ph, CH2C6H6OH-4; X = H, Cl; Y = OH). Some of the corresponding Me esters II (X = H; R = H, Me, CHMe2, CH2CHMe2; Y = OMe) are also prepd. Hydrazinolysis of these Me esters yield the hydrazides II (X = H; R = H, Me, CHMe2, CH2CHMe2, Y = NHNH2). Coupling reactions of some amino acid derivs. with H-Gly-OMe hydrochloride in THF-Et3N medium using the dicyclohexylcarbodiimide method furnishes the desired dipeptide Me esters II (X = H, Cl; R = H, Me, CH2C6H6OH-4, CH2CHMe2; Y = NHCH2CO2Me). The spectral data are briefly discussed.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1998:659430 CAPLUS

DN 130:38661

TI A facile synthesis and some new reactions of N-benzylcarboxamides with essential amino acids

AU El-Sayed, Ragab A.

CS Chemistry Department, Faculty of Science, Al-Azhar Univ., CAIRO, Egypt

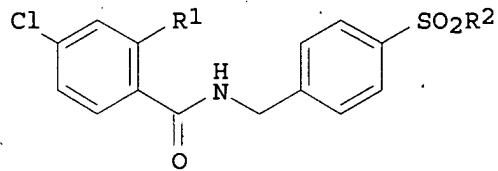
SO Phosphorus, Sulfur and Silicon and the Related Elements (1997), 131, 207-213

CODEN: PSSLEC; ISSN: 1042-6507

PB Gordon & Breach Science Publishers
DT Journal
LA English
AB N-Benzyl-p-chloro- and N-Benzyl-2,4-dichlorobenzamide react with chlorosulfonic acid to give the corresponding p-sulfonyl chlorides, which condensed with nucleophiles to give amino acid derivs. Me esterification, hydrazinolysis, and coupling reactions of the amino acid derivs. are described.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 1998:541520 CAPLUS
DN 129:260836
TI A facile synthesis and some new reactions of N-benzylcarboxamides with essential amino acids
AU El-Sayed, Ragab A.
CS Chemistry Department, Faculty of Science, Al-Azhar University, Nasr, Egypt
SO Journal of the Serbian Chemical Society (1998), 63(8), 601-606
CODEN: JSCSEN; ISSN: 0352-5139
PB Serbian Chemical Society
DT Journal
LA English
GI

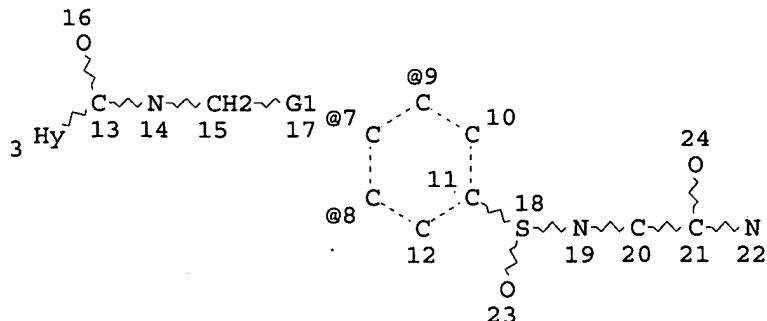


AB N-Benzyl-p-chloro and N-benzyl-2,4-dichlorobenzamide react with chlorosulfonic acid to give the corresponding p-sulfonyl chlorides I (R1 = H, Cl; R2 = Cl) which on condensation with nucleophiles give amino acid derivs. I (R1 = H; R2 = X1-OH; X1 = Gly, DL-Ala, Val, DL-Val, Leu, Tyr; and R1 = Cl; R2 = X2-OH; X2 = Gly, Ala, Val, Leu, Tyr, Phe). Some of the corresponding Me esters I (R1 = H, R2 = X3-OMe; X3 = Gly, DL-Ala, Val, Leu) were also prep'd. Hydrazinolysis of these Me esters yielded the hydrazides I (R1 = H, R2 = X3-N2H3; X3 = same). Coupling reactions of some amino acid derivs. with amino acid Me ester hydrochloride in THF-Et3N medium, using the dicyclohexylcarbodiimide method, furnished the desired dipeptide Me esters I (R1 = H; R2 = X4-Gly-OMe; X4 = Gly, Leu, Tyr; and R1 = Cl; R2 = X5-Gly-OMe; X5 = Gly, Ala, Leu). The spectral data are briefly discussed.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 1984:510479 CAPLUS
DN 101:110479
TI Synthesis and properties of esters of [4-[(acylamido)methyl]benzenesulfonyl]oxamic acids
AU Petyunin, P. A.; Valyashko, N. N.; Shemchuk, L. A.; Konev, V. F.; Stoletov, Yu. V.; Klebanov, B. M.
CS Khar'k. Gos. Farm. Inst., Kharkov, USSR
SO Deposited Doc. (1982), SPSTL 1220 Khp-D82, 9 pp. Avail.: SPSTL
DT Report
LA Russian
AB p-H2NSO2C6H4CH2NHR (I; R = H) reacted with R1COX (R1 = Me, Ph, 4-tolyl,

4-O₂NC₆H₄, 2-ClC₆H₄; X = halo) and with R₂SO₂C₁ (R₂ = Ph, 4-tolyl, 4-AcNHC₆H₄, 2-ClC₆H₄, 2-BrC₆H₄, 4-O₂NC₆H₄) to give 11 corresponding I (R = COR₁, SO₂R₂) (II) in 43-84% yield. II condensed with (CO₂Et)₂ in MeOH contg. NaOMe to give 56-89% yield of 9 corresponding p-R₃COCONHSO₂C₆H₄CH₂NHR (III; R₃ = EtO), which gave 67-96% III (R = Bz, R₃ = H₂N, BuNH; R = p-tosyl, R₃ = H₂N, H₂NNH, cyclohexylamino) (IV) with the resp. R₃H. IV had hypoglycemic activity (no data).



VAR G1=7/8/9
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 SEARCH TIME: 00.00.01

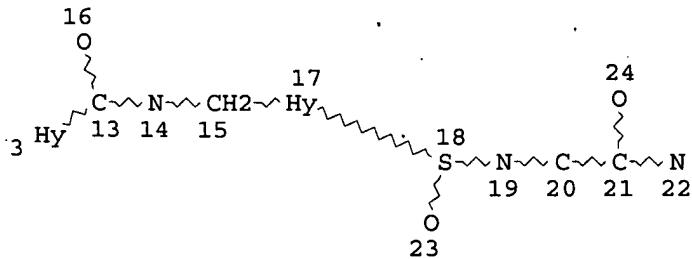
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 PROJECTED ANSWERS: 0 TO 0

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100.0% PROCESSED 505 ITERATIONS 0 ANSWERS
 SEARCH TIME: 00.00.01

L16 0 SEA SSS FUL L14



ENTER (DIS), GRA, NOD, BON OR ?:end
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=> s 117
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 SAMPLE SCREEN SEARCH COMPLETED - 887 TO ITERATE

100.0% PROCESSED 887 ITERATIONS 0 ANSWERS
 SEARCH TIME: 00.00.01

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 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 15954 TO 19526
 PROJECTED ANSWERS: 0 TO 0

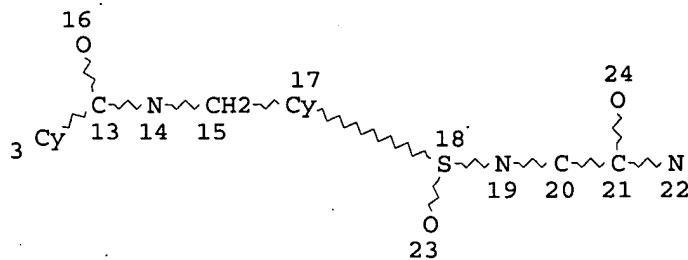
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100.0% PROCESSED 17448 ITERATIONS 0 ANSWERS
 SEARCH TIME: 00.00.01

L19 0 SEA SSS FUL L17

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L20 HAS NO ANSWERS
L20 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
GGCAT IS MCY UNS AT 3
GGCAT IS MCY UNS AT 17
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

=> s 120 ful
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100.0% PROCESSED 17448 ITERATIONS
SEARCH TIME: 00.00.01

18 ANSWERS

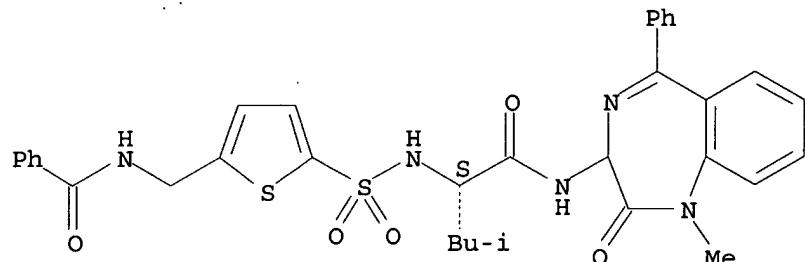
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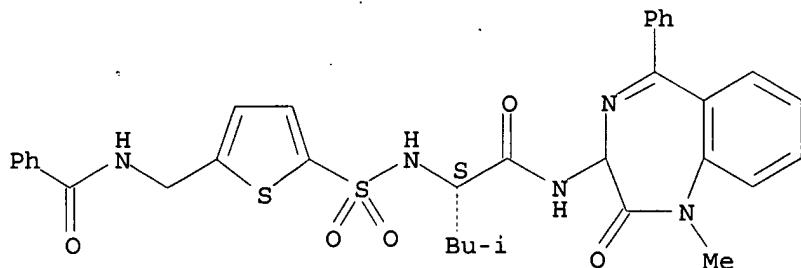
=> s 122 not 13
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=> d 1-6

L23 ANSWER 1 OF 6 REGISTRY COPYRIGHT 2003 ACS
RN 334870-26-7 REGISTRY
CN Benzamide, N-[[5-[[[(1S)-1-[(2,3-dihydro-1-methyl-2-oxo-5-phenyl-1H-1,4-benzodiazepin-3-yl)amino]carbonyl]-3-methylbutyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C34 H35 N5 O5 S2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1957 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L23 ANSWER 2 OF 6 REGISTRY COPYRIGHT 2003 ACS

RN 332082-85-6 REGISTRY

CN Benzamide, 4-chloro-N-[[5-[[2-oxo-2-[[2-[[5-(trifluoromethyl)-2-pyridinyl]amino]ethyl]amino]ethyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

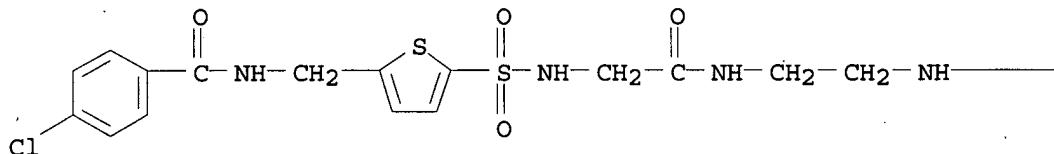
FS 3D CONCORD

MF C22 H21 Cl F3 N5 O4 S2

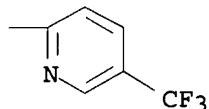
SR CA

LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L23 ANSWER 3 OF 6 REGISTRY COPYRIGHT 2003 ACS

RN 332082-84-5 REGISTRY

CN Benzamide, 4-chloro-N-[[5-[[2-oxo-2-[[2-[[3-(trifluoromethyl)-2-pyridinyl]amino]ethyl]amino]ethyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)

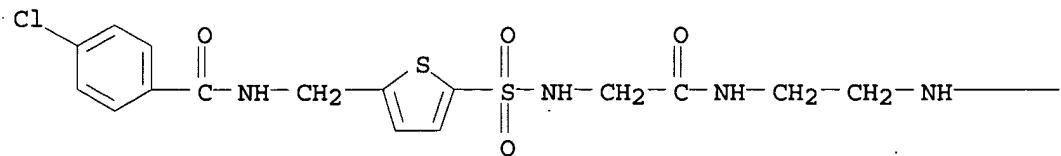
FS 3D CONCORD

MF C22 H21 Cl F3 N5 O4 S2

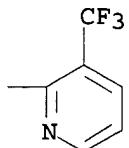
SR CA

LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L23 ANSWER 4 OF 6 REGISTRY COPYRIGHT 2003 ACS

RN 332082-83-4 REGISTRY

CN Benzamide, 4-chloro-N-[[5-[[[2-[[2-[(5-nitro-2-pyridinyl)amino]ethyl]amino]-2-oxoethyl]amino]sulfonyl]-2-thienyl]methyl]-(9CI) (CA INDEX NAME)

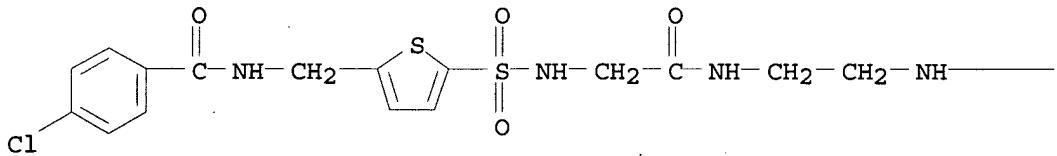
FS 3D CONCORD

MF C21 H21 Cl N6 O6 S2

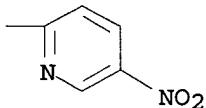
SR CA

LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B



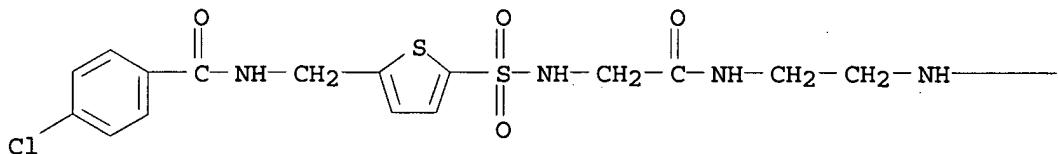
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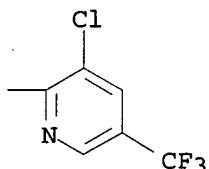
L23 ANSWER 5 OF 6 REGISTRY COPYRIGHT 2003 ACS

RN 332082-82-3 REGISTRY
 CN Benzamide, 4-chloro-N-[[5-[[2-[[2-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]amino]ethyl]amino]-2-oxoethyl]amino]sulfonyl]-2-thienyl]methyl]- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C22 H20 Cl2 F3 N5 O4 S2
 SR CA
 LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B



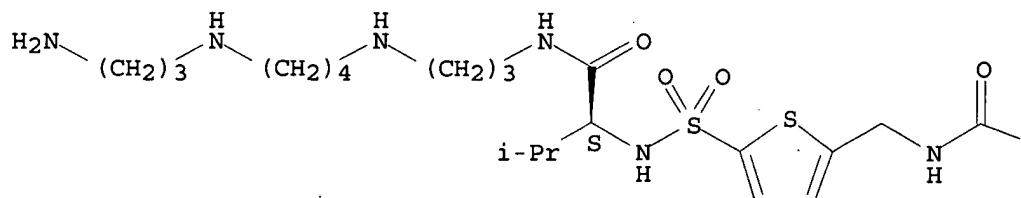
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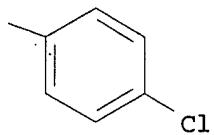
1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L23 ANSWER 6 OF 6 REGISTRY COPYRIGHT 2003 ACS
 RN 330162-52-2 REGISTRY
 CN Benzamide, N-[[5-[[[(1S)-1-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-2-methylpropyl]amino]sulfonyl]-2-thienyl]methyl]-4-chloro- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C27 H43 Cl N6 O4 S2
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

11 12 13
O O O
}{ } }
Cy~ C~~ N~~ Ak~ Cy~ S~~ N~~ Ak~ C~~ N
1 2 3 4 5 6 7 8 9 10

ENTER (DIS), GRA, NOD, BON OR ?:end
L1 STRUCTURE CREATED

=> s 11
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PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s 11 ful
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 L4 4 L3
 => d bib abs hitstr 1-4

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1979:121590 CAPLUS

DN 90:121590

TI Novel pyrazole derivatives

IN Irikura, Tsutomu

PA Kyorin Pharmaceutical Co., Ltd., Japan

SO Brit., 14 pp.

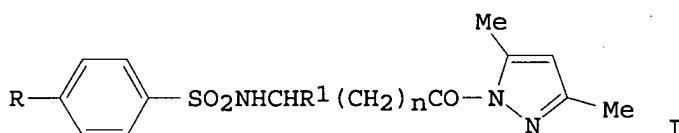
CODEN: BRXXAA

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | GB 1505518 | A | 19780330 | GB 1975-23637 | 19750530 |
| PRAI | GB 1975-23637 | | | 19750530 | |
| GI | | | | | |



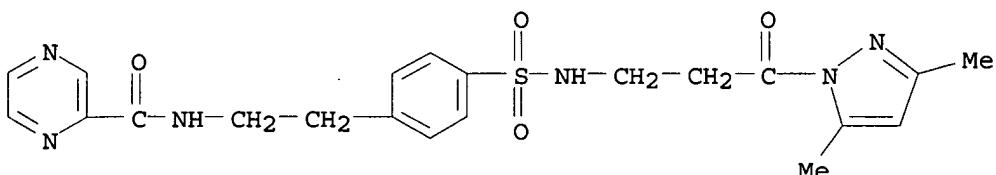
AB The prepn. is described of pyrazoles I [R = AcNH(CH₂)₂, EtO₂CNH(CH₂)₂, 5,2-Cl(MeO)C₆H₃CONH(CH₂)₂, 2-(2-pyrazinecarbonylamino)ethyl, Me₂CHCH₂, cyclohexyl, Cl; n = 0 or 1 when R₁ = H; n = 0 when R₁ = Me, Ph, PhCH₂]. Thus, I (R = Cl, R₁ = H, n = 0) was prepd. (60.3%) by treating 4-ClC₆H₄SO₂NHCH₂CONHNH₂ with (MeCO)₂CH₂. Pharmacol. studies showed that I are very useful as antidiabetic agents.

IT 57890-99-0P 69497-54-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (antidiabetic agent, prepn. of)

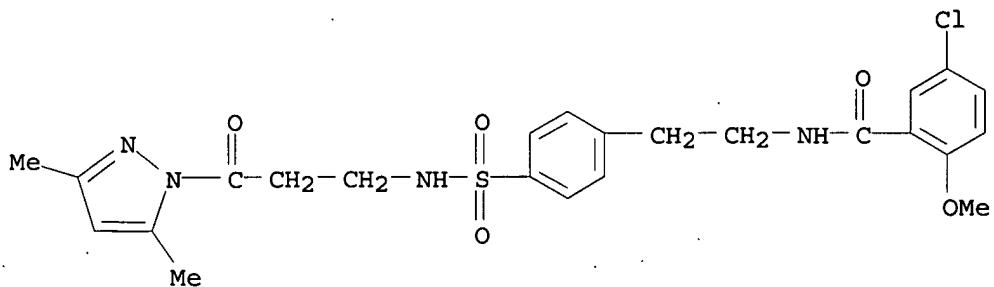
RN 57890-99-0 CAPLUS

CN Pyrazinecarboxamide, N-[2-[4-[[[3-(3,5-dimethyl-1H-pyrazol-1-yl)-3-oxopropyl]amino]sulfonyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)



RN 69497-54-7 CAPLUS

CN Benzamide, 5-chloro-N-[2-[4-[[[3-(3,5-dimethyl-1H-pyrazol-1-yl)-3-oxopropyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1977:484998 CAPLUS

DN 87:84998

TI Pyrazole derivatives

PA Kyorin Pharmaceutical Co., Ltd., Japan

SO Fr. Demande, 21 pp.

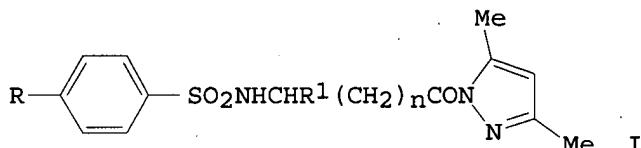
CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | FR 2312242 | A1 | 19761224 | FR 1975-16940 | 19750530 |
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| PRAI | FR 1975-16940 | | 19750530 | | |
| GI | | | | | |



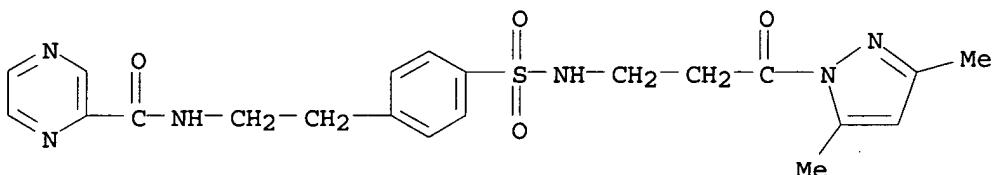
AB Pyrazoles I [R = MeCONHCH₂CH₂, Cl, EtO₂CNHCH₂CH₂, R₁ = H, n = 0, 1; R = H, pyrazinylcarboxamidoethyl, R₁ = H, n = 1; R = 5,2-Cl(MeO)C₆H₃CONHCH₂CH₂, cyclohexyl, Me₂CHCH₂, R₁ = H, n = 0; R = Cl, R₁ = Ph, Me, CH₂Ph, n = 0] were prepd. by cyclizing 4-RC₆H₄SO₂NHCHR₁(CH₂)_nCONHNH₂ with Ac₂CH₂. I are antidiabetics. Thus, I [R = 5,2-Cl(MeO)C₆H₃CONHCH₂CH₂, R₁ = H, n = 0] at 100 mg/kg orally in rats caused a 48.1% decrease in blood sugar level 2 h after administration.

IT 57890-99-0P 57891-05-1P

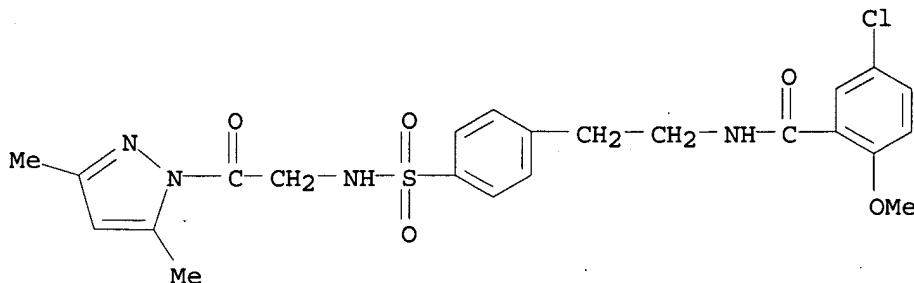
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and antidiabetic activity of)

RN 57890-99-0 CAPLUS

CN Pyrazinecarboxamide, N-[2-[4-[[3-(3,5-dimethyl-1H-pyrazol-1-yl)-3-oxopropyl]amino]sulfonyl]phenyl]ethyl] - (9CI) (CA INDEX NAME)



RN 57891-05-1 CAPLUS
 CN Benzamide, 5-chloro-N-[2-[4-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1977:89810 CAPLUS

DN 86:89810

TI Pyrazole derivatives

IN Irikura, Tsutomu

PA Kyorin Pharmaceutical Co., Ltd., Japan

SO Belg., 24 pp.

CODEN: BEXXAL

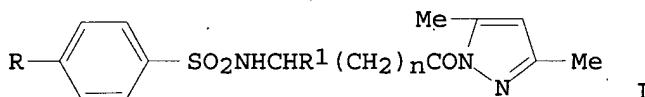
DT Patent

LA French

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | BE 829785 | A1 | 19751001 | BE 1975-156955 | 19750602 |
| PRAI | BE 1975-156955 | | 19750602 | | |

GI



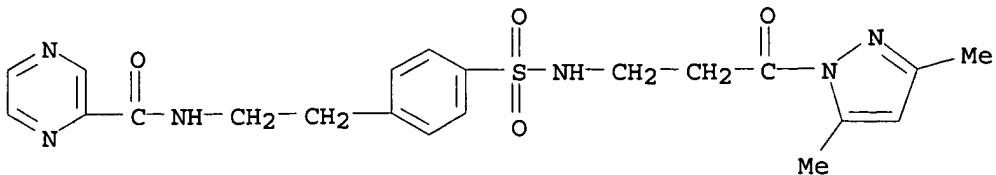
AB Pyrazoles I (R = H, AcNHCH2CH2, pyrazinylcarboxamidoethyl, EtO2CNHCH2CH2, Cl, R1 = H, n = 1; R = Cl, AcNHCH2CH2, EtO2CNHCH2CH2, 5,2-Cl(MeO)C6H3CONHCH2CH2, cyclohexyl, Me2CHCH2, R1 = H, n = 0; R = Cl, R1 = Ph, Me, PhCH2, n = 0) were prepd. by condensing 4-RC6H4SO2NHCHR1:CH2)nCONHNH2 with Ac2CH2. I at 100 mg/kg orally in rats gave 22.1-51.3% decrease in blood sugar level.

IT 57890-99-0P 57891-05-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and antidiabetic activity of)

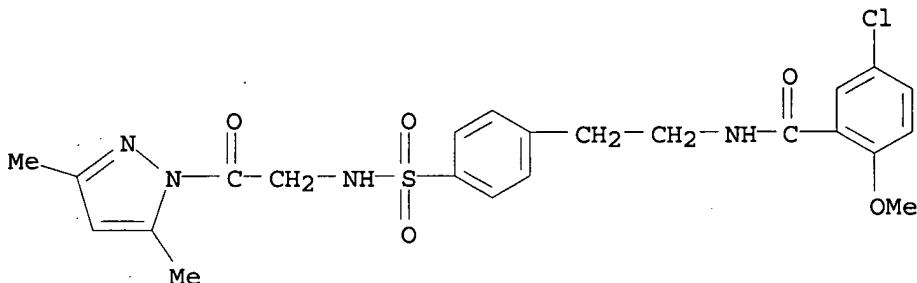
RN 57890-99-0 CAPLUS

CN Pyrazinecarboxamide, N-[2-[4-[[3-(3,5-dimethyl-1H-pyrazol-1-yl)-3-oxopropyl]amino]sulfonyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)



RN 57891-05-1 CAPLUS

CN Benzamide, 5-chloro-N-[2-[4-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS

AN 1976:59445 CAPLUS

DN 84:59445

TI Antidiabetic pyrazoles

IN Irikura, Tsutomu

PA Kyorin Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 50070367 | A2 | 19750611 | JP 1973-121974 | 19731030 |
| | JP 52038033 | B4 | 19770927 | | |

PRAI JP 1973-121974 19731030

GI For diagram(s), see printed CA Issue.

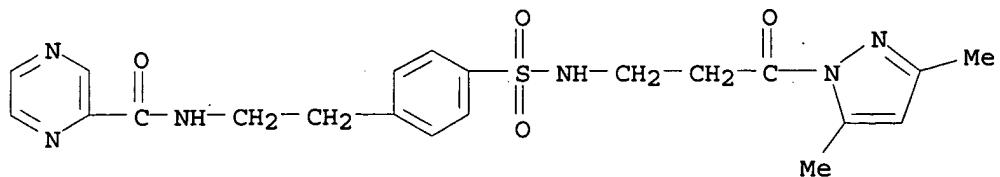
AB Pyrazoles I [R = 2-acetylaminooethyl (Q), 2-ethoxycarbonylaminooethyl, 2-(2-methoxy-5-chlorobenzoylamino)ethyl, 2-(2-pyrazinecarbonylamino)ethyl (Q1), Me, iso-Bu, cyclohexyl, Cl; R1 = H, Me, Ph, pentyl; n = 0-1 when R1 = H; n = 0 when R1 = Me, Ph, pentyl] were prepd. by reaction of p-RC₆H₄SO₂NHCHR₁(CH₂)_nCONHNH₂ with AcCH₂Ac. Thus, refluxing 10 g N-benzenesulfonyl-.beta.-alanine hydrazide with 5 g AcCH₂Ac in EtOH 3 hr gave 99% I (R = R1 = H, n = 1). Among 15 more I prepd. were the following I (R, R1, n given): Me, H, 1; Q, H, 1; Q1, H, 1; and Cl, H, 0.

IT 57890-99-0P 57891-05-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiadidiabetic activity of)

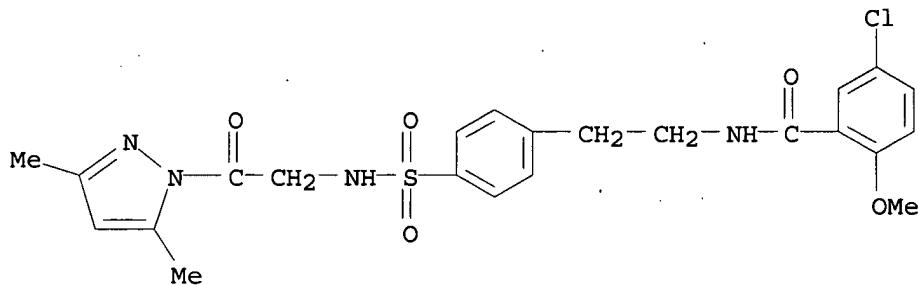
RN 57890-99-0 CAPLUS

CN Pyrazinecarboxamide, N-[2-[4-[[[3-(3,5-dimethyl-1H-pyrazol-1-yl)-3-oxopropyl]amino]sulfonyl]phenyl]ethyl]- (9CI) (CA INDEX NAME)



RN 57891-05-1 CAPLUS

CN Benzamide, 5-chloro-N-[2-[4-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



=> fil reg

COST IN U.S. DOLLARS

FULL ESTIMATED COST

| SINCE FILE ENTRY | TOTAL SESSION |
|---------------------|------------------|
| 18.98 | 173.58 |

AN 1998:87604 CAPLUS
 DN 128:167263
 TI Preparation of N-(mercaptoethyl) (benzene or alkyl)sulfonamide derivatives or their disulfides as metalloprotease inhibitors
 IN Decrescenzo, Gary; Abbas, Zaheer S.; Freskos, John N.; Getman, Daniel P.; Heintz, Robert M.; Mischke, Brent V.; et al.
 PA Monsanto Co., USA; Decrescenzo, Gary; Abbas, Zaheer S.; Freskos, John N.; Getman, Daniel P.
 SO PCT Int. Appl., 301 pp.
 CODEN: PIXXD2

DT Patent

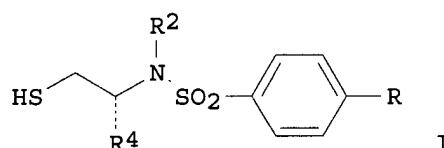
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9803166 | A1 | 19980129 | WO 1997-US12873 | 19970722 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9738903 | A1 | 19980210 | AU 1997-38903 | 19970722 |
| | AU 740263 | B2 | 20011101 | | |
| | BR 9710752 | A | 19990817 | BR 1997-10752 | 19970722 |
| | EP 939629 | A1 | 19990908 | EP 1997-936168 | 19970722 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI | | | | |
| | CN 1238688 | A | 19991215 | CN 1997-197980 | 19970722 |
| | NZ 333825 | A | 20001027 | NZ 1997-333825 | 19970722 |
| | JP 2000515153 | T2 | 20001114 | JP 1998-507195 | 19970722 |
| | NZ 506464 | A | 20020628 | NZ 1997-506464 | 19970722 |
| | NO 9900247 | A | 19990319 | NO 1999-247 | 19990120 |
| PRAI | US 1996-22040P | P | 19960722 | | |
| | NZ 1997-333825 | A1 | 19970722 | | |
| | WO 1997-US12873 | W | 19970722 | | |

OS MARPAT 128:167263

GI



AB This invention is directed to proteinase (protease) inhibitors, and more particularly to thiol sulfonamide inhibitors for matrix metalloproteinase (MMP-13), compns. of proteinase inhibitors, intermediates for the syntheses of proteinase inhibitors, processes for the prepn. of proteinase inhibitors and processes for treating pathol. conditions assocd. with pathol. matrix metalloproteinase activity related to MMP-13. The title compds. are represented by formula $\text{HSCH}_2\text{CHR}^4\text{N}(\text{R}^2)\text{SO}_2\text{R}^1$, $\text{R}^9\text{C}(:\text{W})\text{SCH}_2\text{CH}(\text{R}^4)\text{N}(\text{R}^2)\text{SO}_2\text{R}^1$, or $\text{R}^1\text{SO}_2\text{N}(\text{R}^2)\text{CH}(\text{R}^4)\text{CH}_2\text{S}-\text{SCH}_2\text{CH}(\text{R}^4)\text{N}(\text{R}^2)\text{SO}_2\text{R}^1$ [R^1 = a radical having a length greater than that of a satd. four carbon chain and shorter than that of a satd. eighteen carbon chain, and when rotated about an axis drawn through the SO_2 -bonded 1-position and the 4-position of a 6-membered ring or the SO_2 -bonded position and substituent-bonded 3- or 5-membered ring defines a three-dimensional vol.]

whose widest dimension has the width of about one Ph ring to about three Ph rings in a direction to that axis to rotation; R2 = H, C1-6 alkyl, C2-4 alkyl substituted by amino or mono- or disubstituted amino; R4 = CO2H, CONH2, C1-6 alkyl; W = O, S; R9 = C1-6 alkyl, C1-6 alkoxy, single-ringed carbocyclic or heteroaryl; provided that R2 = H only when R1 = 4-(phenylazo)phenyl]. They are useful for the treatment of the diseases in which known and new MMP enzymes are implicated, e.g. uncontrolled breakdown of connective tissue by metalloproteinases leading to rheumatoid arthritis, osteoarthritis, tumor metastasis, etc. Thus, N-[(R)-2-hydroxy-1-methylethyl]-N-methyl-4-methoxybenzenesulfonamide (prepn. given) underwent Mitsunobu reaction with thioacetic acid using Ph3P and di-Et azodicarboxylate in THF at 0.degree. for 0.5 h followed by treatment with NaOMe in MeOH to give N-[(R)-2-mercaptop-1-methylethyl]-N-methyl-4-methoxybenzenesulfonamide (I; R = OMe, R2 = Me, R4 = Me). The latter compd. and I (R = SPh, R2 = Q, R4 = CONH2) in vitro showed IC50 of 300 and 2,060 nM, resp., against MMP-1 and 32.5 and <0.1 nM, resp., against MMP-13.

IT

202752-07-6P

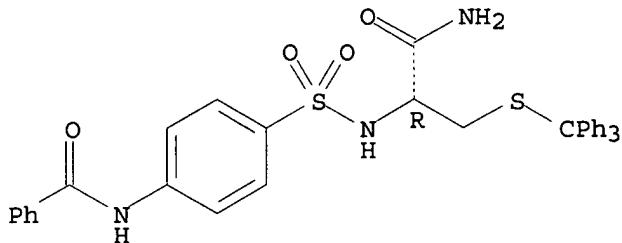
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-(mercaptopethyl)(benzene or alkyl)sulfonamide derivs. or their disulfides as metalloprotease inhibitors and therapeutics)

RN 202752-07-6 CAPLUS

CN Benzamide, N-[4-[[[2-amino-2-oxo-1-[(triphenylmethyl)thio]methyl]ethyl]amino]sulfonyl]phenyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 1999:579153 CAPLUS

DN 131:214280

TI Preparation of sulfonamides as MMP-8 inhibitors

IN Watanabe, Fumihiko; Tsumiki, Hirohige

PA Shionogi and Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

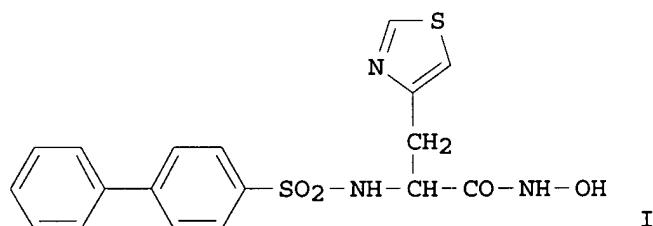
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | JP 11246527 | A2 | 19990914 | JP 1998-49260 | 19980302 <-- |
| PRAI | JP 1998-49260 | | 19980302 | | |
| OS | MARPAT 131:214280 | | | | |
| GI | | | | | |



AB The title compds. R4R3SO2N(R2)CH(R1)COY [R1 = (un)substituted alkyl, etc.; R2 = H, alkyl, etc.; R3 = phenylene, etc.; R4 = (un)substituted phenyl; Y = NHOH, OH] are prep'd. The title compd. I at 1000 nM gave 97.6% inhibition of MMP-8. Formulations are given.

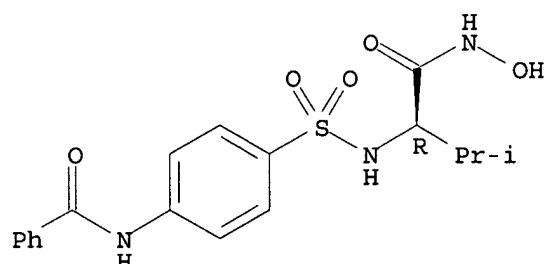
IT 243144-02-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of sulfonamides as MMP-8 inhibitors)

RN 243144-02-7 CAPLUS

CN Benzamide, N-[4-[[[(1R)-1-[(hydroxyamino)carbonyl]-2-methylpropyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AN 1976:59445 CAPLUS
DN 84:59445
TI Antidiabetic pyrazoles
IN Irikura, Tsutomu
PA Kyorin Pharmaceutical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 50070367 | A2 | 19750611 | JP 1973-121974 | 19731030 |
| | JP 52038033 | B4 | 19770927 | | |

PRAI JP 1973-121974 19731030

GI For diagram(s), see printed CA Issue.

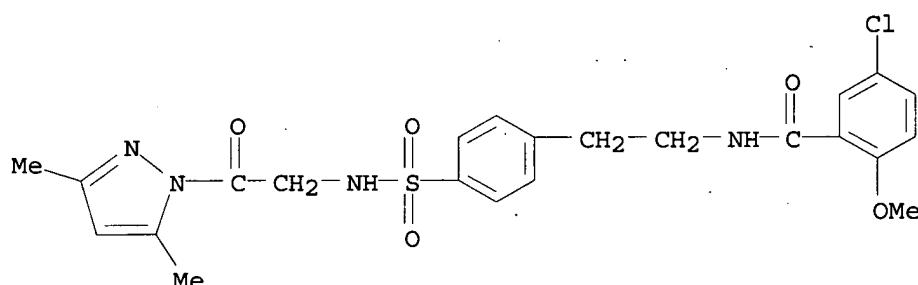
AB Pyrazoles I [R = 2-acetylaminooethyl (Q), 2-ethoxycarbonylaminooethyl, 2-(2-methoxy-5-chlorobenzoylamino)ethyl, 2-(2-pyrazinecarbonylamino)ethyl (Q1), Me, iso-Bu, cyclohexyl, Cl; R1 = H, Me, Ph, pentyl; n = 0-1 when R1 = H; n = 0 when R1 = Me, Ph, pentyl] were prepd. by reaction of p-RC₆H₄SO₂NHCHR₁(CH₂)_nCONHNH₂ with AcCH₂Ac. Thus, refluxing 10 g N-benzenesulfonyl-.beta.-alanine hydrazide with 5 g AcCH₂Ac in EtOH 3 hr gave 99% I (R = R₁ = H, n = 1). Among 15 more I prepd. were the following I (R, R₁, n given): Me, H, 1; Q, H, 1; Q1, H, 1; and Cl, H, 0.

IT 57891-05-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiadiabetic activity of)

RN 57891-05-1 CAPLUS

CN Benzamide, 5-chloro-N-[2-[4-[[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]amino]sulfonyl]phenyl]ethyl]-2-methoxy- (9CI) (CA INDEX NAME)



4/5/1 (Item 1 from file: 34)
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
(c) 2003 Inst for Sci Info. All rts. reserv.

07916363 Genuine Article#: 223XL Number of References: 56
Title: New targets for anti-inflammatory drugs
Author(s): Lewis AJ (REPRINT) ; Manning AM
Corporate Source: SIGNAL PHARMACEUT INC, 5555 OBERLIN DR/SAN DIEGO//CA/92121
(REPRINT)
Journal: CURRENT OPINION IN CHEMICAL BIOLOGY, 1999, V3, N4 (AUG), P489-494
ISSN: 1367-5931 Publication date: 19990800
Publisher: CURRENT BIOLOGY LTD, 34-42 CLEVELAND STREET, LONDON W1P 6LE,
ENGLAND
Language: English Document Type: REVIEW
Geographic Location: USA
Subfile: CC LIFE--Current Contents, Life Sciences
Journal Subject Category: BIOCHEMISTRY & MOLECULAR BIOLOGY; BIOPHYSICS
Abstract: Inflammatory and autoimmune diseases, including rheumatoid arthritis, inflammatory bowel diseases, multiple sclerosis, psoriasis and asthma, provide drug discoverers with a tremendous challenge. The precise causes of these diseases are not known, but our understanding of the molecular and cellular mechanisms associated with inflammatory diseases has increased dramatically. As a consequence, a wide array of gene targets have emerged that control cell influx and activation, inflammatory mediator release and activity, and tissue proliferation and degradation. Since multiple gene products have been identified at the sites of inflammation, there has been a surge of interest in identifying intracellular signaling targets, including transcription factors that control inflammatory gene expression and which are amenable to drug discovery.
Identifiers--KeyWord Plus(R): NF-KAPPA-B; ACTIVATED PROTEIN-KINASES; MAP-KINASE; RHEUMATOID-ARTHRITIS; JNK PATHWAY; TNF-ALPHA; T-CELLS; INHIBITOR; DISEASE; AP-1

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
(c) 2003 Inst for Sci Info. All rts. reserv.

07699439 Genuine Article#: 198ER Number of References: 64

Title: Alkyl-lysophospholipids activate the SAPK JNK pathway and
enhance radiation induced apoptosis

Author(s): Ruiter GA; Zerp SF; Bartelink H; vanBlitterswijk WJ; Verheij M
(REPRINT)

Corporate Source: ANTONI VAN LEEUWENHOEK ZIEKENHUIS, NETHERLANDS CANC INST,
DEPT RADIOTHERAPY, PLESMANLAAN 121/NL-1066 CX AMSTERDAM//NETHERLANDS/
(REPRINT); ANTONI VAN LEEUWENHOEK ZIEKENHUIS, NETHERLANDS CANC INST,
DEPT RADIOTHERAPY/NL-1066 CX AMSTERDAM//NETHERLANDS/; ANTONI VAN
LEEUWENHOEK ZIEKENHUIS, NETHERLANDS CANC INST, DIV CELLULAR
BIOCHEM/NL-1066 CX AMSTERDAM//NETHERLANDS/

Journal: CANCER RESEARCH, 1999, V59, N10 (MAY 15), P2457-2463

ISSN: 0008-5472 Publication date: 19990515

Publisher: AMER ASSOC CANCER RESEARCH, PO BOX 11806, BIRMINGHAM, AL 35202

Language: English Document Type: ARTICLE

Geographic Location: NETHERLANDS

Subfile: CC LIFE--Current Contents; Life Sciences; CC CLIN--Current
Contents, Clinical Medicine

Journal Subject Category: ONCOLOGY

Abstract: Alkyl-lysophospholipids (ALPs) represent a new class of antitumor drugs that induce apoptotic cell death in a variety of tumor cell lines. Although their precise mechanism of action is unknown, ALPs primarily act on the cell membrane, where they inhibit signaling through the mitogen-activated protein kinase (MAPK) pathway. Because stimulation of the stress-activated protein kinase/c-Jun NH₂-terminal kinase (SAPK/JNK) pathway is essential for radiation-induced apoptosis in certain cell types, we tested the effect of ALPs in combination with ionizing radiation on MAPK/SAPK signaling and apoptosis induction.

Here, we present data showing that three ALPs, 1-O-octadecyl-2-O-methyl-rac-glycero-3-phosphocholine, hexadecylphosphocholine, and the novel compound octadecyl-(1,1-dimethyl-piperidinio-4-yl)-phosphate (D-21266) induce time- and dose-dependent apoptosis in the human leukemia cell lines U937 and Jurkat T but not in normal vascular endothelial cells.

Moreover, in combination with radiation, ALPs strongly enhance the induction of apoptosis in both leukemic cell lines. All tested ALPs not only prevented MAPK activation, but, like radiation, stimulated the SAPK/JNK cascade within minutes. A dominant-negative mutant of c-Jun inhibited radiation- and ALP-induced apoptosis, indicating a requirement for the SAPK/JNK pathway. Our data support the view that ALPs and ionizing radiation cause an enhanced apoptotic effect by modulating the balance between the mitogenic, antiapoptotic MAPK, and the apoptotic SAPK/JNK pathways. This type of modulation of specific signal transduction pathways in tumor cells may lead to the development of new therapeutic strategies.

Identifiers--KeyWord Plus(R): PROTEIN-KINASE-C; N-TERMINAL KINASE;
PROGRAMMED CELL-DEATH; HUMAN LEUKEMIC-CELLS; ETHER LIPID
1-OCTADECYL-2-METHYL-RAC-GLYCERO-3-PHOSPHOCHOLINE; SIGNAL-TRANSDUCTION;
IONIZING-RADIATION; PERSISTENT ACTIVATION; PHOSPHOLIPID ANALOGS;
TRANSCRIPTION FACTOR

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
(c) 2003 Inst for Sci Info. All rts. reserv.

10905579 Genuine Article#: 582GX Number of References: 49

Title: Bisindolylmaleimide VIII enhances DR5-mediated apoptosis through the MKK4/JNK/p38 kinase and the mitochondrial pathways

Author(s): Ohtsuka T; Zhou T (REPRINT)

Corporate Source: Univ Alabama,Dept Med, Div Clin Immunol & Rheumatol, 465 LHRB, 701 19th St/Birmingham//AL/35294 (REPRINT); Univ Alabama, Dept Med, Div Clin Immunol & Rheumatol, Birmingham//AL/35294; Sankyo Co Ltd, Biomed Res Labs, Shinagawa Ku, Tokyo 1408710//Japan/

Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 2002, V277, N32 (AUG 9), P 29294-29303

ISSN: 0021-9258 Publication date: 20020809

Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814-3996 USA

Language: English Document Type: ARTICLE

Geographic Location: USA; Japan

Journal Subject Category: BIOCHEMISTRY & MOLECULAR BIOLOGY

Abstract: Bisindolylmaleimide VIII (Bis VIII) has been previously shown to enhance Fas-mediated apoptosis through a protein kinase C-independent mechanism. In the present study, we examined the effect of Bis VIII on apoptosis induced by DR5 (TRAIL-R2), using an agonistic anti-human DR5 monoclonal antibody, TRA-8. Our results demonstrated that Bis VIII was able to enhance the apoptosis-inducing activity of TRA-8 both in vitro and in vivo. The combination of TRA-8 and Bis VIII led to a synergistic and sustained activation of the c-Jun N-terminal kinase (JNK) and p38 mitogen-activated protein kinase, which was mediated by MAPK kinase 4 and was caspase-8-dependent. The mitochondrial pathway is involved in the synergistic induction of apoptosis by Bis VIII and TRA-8. Bis VIII alone induced the loss of mitochondrial membrane potential in a caspase-independent fashion without subsequent release of cytochrome c. However, in the presence of Bis VIII, TRA-8 induced more profound loss of mitochondrial membrane potential and release of cytochrome c. These results suggest that the enhanced and persistent activation of the JNK/p38 and the decreased mitochondrial membrane potential play a crucial role in synergistic induction of the death receptor-mediated apoptosis by Bis VIII. The unique ability of Bis VIII to enhance DR5-mediated apoptosis signal transduction discloses a potential utility of this compound in combination with anti-DR5 antibody in cancer therapy.

Identifiers--KeyWord Plus(R): N-TERMINAL KINASE; ACTIVATED PROTEIN-KINASE; ICE/CED-3 FAMILY PROTEASES; FADD-DEPENDENT APOPTOSIS; TRAIL-INDUCED APOPTOSIS; CYTOTOXIC LIGAND TRAIL; SIGNALING PATHWAY; KAPPA-B; T-CELLS; INDEPENDENT PATHWAYS

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
(c) 2003 Inst for Sci Info. All rts. reserv.

11514345 Genuine Article#: 662UR Number of References: 48

Title: Synergistic induction of tumor cell apoptosis by death receptor antibody and chemotherapy agent through JNK/p38 and mitochondrial death pathway

Author(s): Ohtsuka T; Buchsbaum D; Oliver P; Makhija S; Kimberly R; Zhou T
(REPRINT)

Corporate Source: Univ Alabama,Dept Med,465 LHRB,701 19th St
S/Birmingham//AL/35249 (REPRINT); Sankyo Co Ltd,Biomed Res Labs,Tokyo
1408710//Japan//; Univ Alabama,Dept Med Radiobiol,Birmingham//AL/35294;
Univ Alabama,Div Gynecol Oncol,Birmingham//AL/35294; Univ Alabama,Dept
Math,Birmingham//AL/35294

Journal: ONCOGENE, 2003, V22, N13 (APR 3), P2034-2044

ISSN: 0950-9232 Publication date: 20030403

Publisher: NATURE PUBLISHING GROUP, MACMILLAN BUILDING, 4 CRINAN ST, LONDON
N1 9XW, ENGLAND

Language: English Document Type: ARTICLE

Geographic Location: USA; Japan

Journal Subject Category: BIOCHEMISTRY & MOLECULAR BIOLOGY; ONCOLOGY; CELL
BIOLOGY; GENETICS & HEREDITY

Abstract: Using two agonistic monoclonal antibodies specific for each death receptor of TRAIL, 2E12 (anti-human DR4) and TRA-8 (anti-human DR5), we examined the signal transduction of the death receptors in combination with or without chemotherapy agents such as Adriamycin (doxorubicin hydrochloride) and Cisplatin. Our results demonstrated that chemotherapy agents were able to enhance apoptosis-inducing activity of these antibodies against several different types of tumor cell lines through enhanced caspase activation. The combination of the antibodies and chemotherapy agents led to a synergistical activation of the JNK/p38 MAP kinase, which was mediated by MKK4. The combination also caused an increased release of cytochrome c and Smac/DIABLO from mitochondria in parallel with the profound loss of mitochondrial membrane potential. These results suggest that the enhanced activation of the JNK/p38 kinase and the mitochondrial apoptosis pathways play a crucial role in synergistic induction of the death receptor-mediated apoptosis by chemotherapy agents. Thus, the simultaneous targeting of cell surface death receptors with agonistic antibodies and the intracellular JNK/p38 and the mitochondrial death pathways with chemotherapy agents would enhance the efficacy and selectivity of both agents in cancer therapy.

Descriptors--Author Keywords: apoptosis ; TRAIL receptor ; chemotherapy ;
JNK ; mitochondria

Identifiers--KeyWord Plus(R): TRAIL-INDUCED APOPTOSIS; FADD-DEPENDENT
APOPTOSIS; CYTOTOXIC LIGAND TRAIL; BLADDER-CANCER CELLS; N-TERMINAL
KINASE; MEDIATED APOPTOSIS; DR5-MEDIATED APOPTOSIS; TUMORICIDAL
ACTIVITY; ANTITUMOR-ACTIVITY; ANTICANCER AGENTS